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ABSTRACT

This study provides the officials of Tempe, Arizona, with a wide range of baseline information regarding citizen attitudes toward the City. It contains a design for an information system which could increase the breadth of information available for decision-making city officials and increase citizen participation in the process. Sixteen community issues were analyzed in terms of: (1) the relative importance of each issue as perceived by the residents, (2) the perceived performance of the city for each of the issues, (3) the amount of volunteer effort for each problem area, and (4) the amount of financial support for each service area. The subsystem proposed for use has been named MIS for Municipal Information System. The functions of MIS are oriented to both citizens and decision-makers; the potential users of information are the gatherers and processors of it. MIS breaks down into three major function areas: gathering, processing, and utilization. The system would provide an opportunity to evaluate the effectiveness of present programs, allow more active participation by the public in planning programs, and produce better baseline information necessary for effective planning. (CK)

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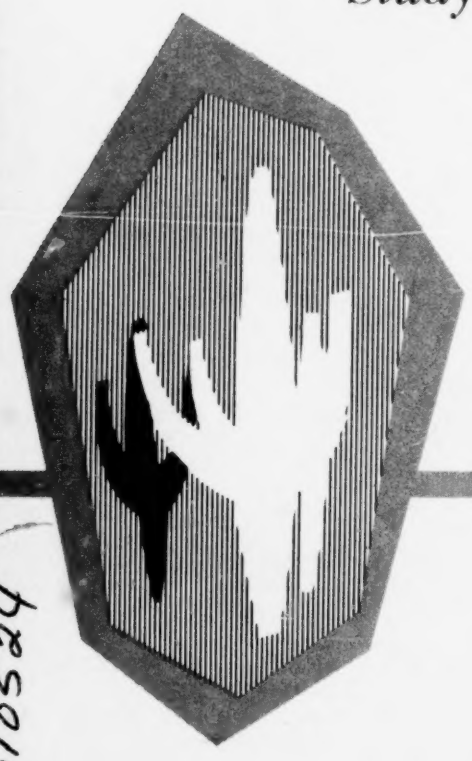
Suburban Problem Solving:

An Information System for Tempe, Arizona

Dickinson L. McGaw
Study Director



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PAPERS IN PUBLIC ADMINISTRATION NO. 20

SUBURBAN PROBLEM SOLVING:

An Information System For Tempe, Arizona

Dickinson L. McGaw

Study Director

INSTITUTE OF PUBLIC ADMINISTRATION
ARIZONA STATE UNIVERSITY
TEMPE, ARIZONA
1971

SUBURBAN PROBLEM SOLVING: AN INFORMATION SYSTEM FOR TEMPE, ARIZONA

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FOREWORD

Public officials must have adequate and reliable information on which to make decisions. Too much information, not enough information, information that is too late or of the wrong kind handicaps decision-makers, lowers the quality of government, produces citizen discontent and decreases the quality of community life. This centennial study directed by Professor Dickinson L. McGaw, Director of the Survey Research Center, Political Science Department, Arizona State University, is a two-fold project. First, it provides the officials of Tempe with a wide range of baseline information regarding the attitudes of its citizens toward the City--their likes and dislikes, needs and future expectations. Second, this study contains a design for an information system for Tempe that could, if implemented in whole or in part, increase the breadth of information available for decision-making by its officials and at the same time increase citizen participation in the decision-making process. One of the most interesting findings in this study is that the amount of communication between citizens and public officials of Tempe is already considerably greater than in most American communities. The proposed information system offered could increase the effectiveness of the communication process and thus add to the reliability of data available to Tempe officials and provide techniques which officials of other communities might want to utilize.

This is the first of what we hope will be many joint efforts by the Institute of Public Administration at A.S.U. and the Survey Research Center to explore public policy issues and, in the long run, improve the quality of life in America.

It is our special hope that this study will help Tempe, the City in which we at A.S.U. live, to continue to improve its services to all its citizens and to create the kind of environment in which all of us can prosper in the best sense of that word.

William R. Gable, Director
Institute of Public Administration

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This study began in August of 1968 under the initial direction of Professor Bruce Merrill. Appreciation is given to Professor Merrill and Professors John P. White and William R. Gable for coordination during the early stages of the project.

The Tempe Jaycees, the Tempe City Council, and some Tempe departmental heads provided valuable assistance throughout the project.

The first survey was conducted during the spring of 1969. Professor Paul Geisel provided valuable assistance and guidance during this phase of the study. Professor Geisel's "bent" for innovation and criticism assisted immensely in improving the final product. Steve Hanson contributed to the solution of many sampling problems. Patricia Thurmond, Leonie Sanders, and Jules Klagge assisted in the historical and governmental description section. Pat Healy and Kris Hansen, two graduate research assistants, worked many hours on data collection.

The second survey was conducted during the summer of 1970. The students of my Public Opinion class should receive credit for their contribution to the project and to community development while learning the techniques of public opinion polling. James Matthews and Lera Holcomb, graduate research assistants, assisted in the data processing phases of the second survey.

I would finally like to express my appreciation to my wife, Beth, and to my two little girls, Michelle and Amy, for releasing me from domestic chores during critical stages of the project.

D. L. M.

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Chapter 1

SUMMARY OF REPORT

Introduction

Title I of the Higher Education Act was passed by Congress in 1965. It was established: "For the purpose of assisting the people of the United States in the solution of community problems such as housing, poverty, government, recreation, employment, youth opportunities, transportation, health, and land use...enabling the commissioner to make grants to strengthen community service programs of colleges and universities."

The present program focuses on community development. As the size of communities grow during the transition from rural to urban phases of development and as the complexity of community problems increases, a progressive loss of a sense of community appears to occur. The individual citizen tends to become more and more bewildered and unable to participate in the solution of community problems. The apathy engendered in the individual citizen can have serious inhibiting effects on governmental bodies and private agencies in their efforts to solve problems.

The science and art of community government has often been compared to the job of the captain of a ship. The direction of both ships and communities requires mastery of much of the same kinds of knowledge and techniques. The captain of a ship must have information about many things.

> He must know, first of all, where the helm is or where he can put his hand on the tiller. He must know where he is in relation to everything in his ship; and he must know what he has to do to stay in control of it, for if he loses control all other information is irrelevant. Second, the helmsman must know where his ship is, where it is moving, and what kind of ship it is. Third, he must know where the relevant environment of the ship is--the reefs, sandbars, shoals, currents, and channels of navigation--and where his ship is in relation to all of these. Finally, he must know where he wants to go. He must have some image of his goal, purpose, or preferred course; and he must know at each moment whether the actual movement of the ship is carrying him closer to his objective or farther away from it. Putting together these four kinds of knowledge and acting upon them constitutes the process of navigation.[1]

Similarly, anyone who governs a community must know: (1) how to stay in control; (2) what is the basic nature and current state of the community which he is controlling; (3) what are the limits and opportunities in its environment with which he must cope; and (4) what results he wishes to attain. Combining these four kinds of knowledge, and acting upon them, is the essence of the art of local government. The present study attempts to provide the navigators of Tempe with some information concerning the "state of the ship" and offers a proposal for a municipal information system to support the decision-making process.

Historical and Governmental Setting

Man's earliest contact with Tempe was traced to 1000 A.D. with the Hokokams who were known largely for their building of irrigation canals.

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[1]Karl Keutsch, Politics and Government (Boston: Houghton Mifflin Co., 1970), pp. 5-8.

Charles Trumbull Hayden founded the present City of Tempe in 1870. The Normal School was established in 1885, making Tempe the oldest educational center in the state. Even though Phoenix was located nearby, transportation was slow, and communication was difficult. The growth and development of Arizona State University was critical to the growth of Tempe. Although Tempe started as a town, it later became a "reluctant" suburb with a university. In 1964 Tempe adopted by charter a council-manager form of government and has continued to operate under this framework.

A Demographic Description

The social structure of a community affected the nature of participation in civic affairs. The longer persons resided in Tempe, the more likely it was that they became involved in community affairs. Persons eligible to vote were more likely to have higher occupational status than those ineligible to vote. Eighty per cent of the respondents identified themselves as members of the middle class. Almost two-thirds of the heads of household were employed outside Tempe. Two-thirds earned their living from a salary. Median educational attainment among eligible voters was two years of college. Almost two out of every three residents owned rather than rented their dwelling units. Ninety-one per cent were Caucasian, six per cent Mexican-American, one per cent Black, and one per cent Indian. Three out of every four were married. The median age of voting eligibles was about 33 years old. Tempe's growth rate of 152 per cent was the second fastest in the state.

Suburban Political Participation

The image many writers have had of suburban politics has been that of the cradle of American democracy. Many social science studies, however, have indicated that apathy and low voter turnout have tended to characterize local politics in the suburb. Tempe was not an exception.

Also, Tempe was found to be relatively Republican and conservative in orientation. Fifty-one per cent of the eligible voters identified with the Republican party while only 37 per cent identified with the Democratic party. The ideological orientation of Tempeans leaned toward the conservative perspective. Personal contact with city officials by residents was very frequent compared to findings in other studies. Seventy-one per cent of the residents indicated they would serve on a community committee focusing on a problem if asked. The Tempe Leadership Conference recruited primarily from the higher status occupations of the community.

Residents supported the students getting involved in the election process. Most voters indicated that seeing student involvement in a campaign on the part of one of the candidates would not affect the way they would vote. Of those who said student involvement would make a difference, three out of four said they would be more likely to vote for rather than against the candidate with student involvement. The Republican ticket carried Tempe in the 1970 election.

Community Priorities and Resources

Sixteen community issues were analyzed in terms of: (1) the relative importance of each issue as perceived by the residents; (2) the perceived

performance of the city for each of the issues; (3) the amount of volunteer effort for each problem area; and (4) the amount of financial support for each service area.

Traffic and school problems were perceived as the most critical issues. Voters rated performance highest in the areas of refuse collection and education but lowest in storm drainage and air pollution control. Volunteer effort was most likely to be found forthcoming for issues relating to juvenile delinquency, schools, police protection, race relations, and air pollution. Voters were more willing to provide more tax support for juvenile delinquency, education, and police protection than for any of the other issues.

Nine resource areas were also investigated in terms of citizen usage, availability, and evaluation. Groceries ranked highest, and movies ranked lowest. Clothing and major purchase stores also ranked low on all three dimensions.

The Suburbanization of Tempe

Three basic types of suburbs were identified: employing, manufacturing, and dormitory. Tempe was characterized more by the dormitory suburb concept than by the other two. While employment brought more people to the Phoenix area than any other factor, educational and housing opportunities motivated three-fifths of the residents of Tempe to move to Tempe.

Tempe residents liked the location of Tempe along with the availability of housing. In the 1969 study, five kinds of "dislikes" were found: (1) lack of shopping centers, movies, restaurants, hospitals, parks, etc.; (2) air pollution; (3) downtown ugliness; (4) the condition of streets; and (5) "hippies."

In the 1970 study, residents thought the major problems facing Tempe were: (1) rapid growth; (2) beautification; (3) schools; and (4) zoning and planning.

The major components of the voters' image of Tempe were that Tempe had good schools, that it was a good place to raise children, and that it was a friendly city. A positive community was related to the amount of reading of the community newspaper; the amount of support for the neighborhood; the status of being married, older, conservative, and politically active.

Tempeans had a dream for their city. They wanted Tempe to be a small, safe, stable, university city. The major recommendations Tempeans made for solving its problems were: (1) better planning; (2) cleaning up the downtown area; (3) more schools; and (4) better enforcement of zoning regulations.

Most residents favored a metropolitan approach toward solving many of the problems facing the cities in the Valley. Tempeans identified the major problems facing the state of Arizona as being: (1) air and water pollution; (2) water shortage; (3) drugs; (4) education; and (5) rapid growth.

Community Decision-Making and Survey Research

Decision-making in communities requires a reliable source of information. Often city managers and councilmen are not faced with a given problem as depicted in the classical model of decision-making but must identify and formulate the problem. The government's effectiveness increasingly depends upon its ability to identify its problems and find relevant information.

The information upon which decision-makers make their decisions, however, often is unsatisfactory for making judgments. Often decision-makers

find too much information of the wrong kind and too little of the right kind. Sometimes information is so dispersed throughout the community that a great effort is required to locate even simple facts. Important information occasionally is suppressed at some level of government for various reasons. Important information often arrives too late to be useful. Finally, information sometimes arrives in a form that offers no opportunity of corroboration. It is surprising that with so many urban problems requiring more information new information-management concepts and technology have not been more fully employed.

A municipal information system might be developed to improve the information base of the decision process. Its functions are oriented to the needs of ordinary citizens as well as the city's decision-makers. The municipal information system is based on the assumption that the more the users of information participate in its collection and analysis, the more confidence they will have in it, the more they will understand it, and the more they will utilize it for further planning and control functions.

The basic components of the system involves data gathering, data processing, and data utilization. The steps of survey research are outlined as an illustration of the basic functions of the information system.

The information system would have a number of benefits. First, it would provide an opportunity to evaluate the effectiveness of present programs. Second, it would allow more active participation of the public in the planning of programs. Finally, a municipal information system would produce better baseline information which is necessary for more effective planning.

The commitment of the modern world to planned social change is overwhelmingly apparent on the national and international scene. It is to be found in current approaches to the political, economic, social and medical problems of the affluent societies in their attempts to change the structure and functioning of the underdeveloped areas. The "War on Poverty" has a similar goal--the elimination of economic, educational, medical and social deprivation. A municipal information system attempts to provide a systematic basis for program planning, implementation, and evaluation at the community level.

As a direct benefit, this system would allow participation of the public in the planning of programs. To an increasing extent, the public is taking an active role in determining what services it will receive. Partly, this is the result of an increased need to secure public participation and partly, it represents the absence of professional guidelines which would enable the public service administrator to know what services would be best for the public. For example, the current accent of the War on Poverty on "self-help" programs places a premium on the community's own definition of its needs for service. While in some cases the public demand will be for evaluation and proof of the effectiveness of programs, for the most part the emphasis will be upon the delivery of services. Thus, popular causes spring up which bring pressure upon the program administrator to satisfy public demand regardless of professional judgment or evaluation findings. The administrator in this case is faced with the decision of continuing a program unaccepted by the public with the consequence of creating greater institutional distrust, continuing the program and taking on the obligation of educating the public, or discontinuing the service.

The evaluation would point out the consequences of the decision which the administrator might select.

This proposed subsystem would challenge the "taken-for-granted" assumptions underlying programs. Some cities, for example, spend considerable amounts of money on publicity and information for citizen consumption assuming that this has an impact upon his knowledge and attitudes about what the city does. Operational programs such as these are often highly entrenched activities based upon a large collection of inadequately-tested assumptions and defended by staff and field personnel with strong vested interests and opinions in the continuation of the program as it is. It is obvious from this description that an evaluation study which proposes to challenge the effectiveness of an established operation program may pose a problem to program personnel. Therefore, it is not surprising to note how seldom an evaluation study of an existing program is undertaken. To a large extent, such evaluations are limited to new programs which are still open to change. And yet the need for evaluation is undoubtedly greatest for operating programs with some deficiencies.

A municipal information system recognizes this need and would attempt to test the effectiveness of traditional programs. Advisory committees could be established to review the current status of a program on a regular basis. This review committee could consist of interdisciplinary program teams. In other words, the members of one department might be called upon to work in another department and make recommendations. Given a mixture of backgrounds and perspectives, it is more likely that some member will challenge

the existing program. The criticism would then come from within the governmental unit, not outside. Change could come about without premature public exposure and would eliminate ineffective, costly pre-planning.

Chapter 2

THE HISTORICAL AND GOVERNMENTAL SETTING

A First Impression

Tempe, a city of 62,907 people, is located nine miles southeast of the center of Phoenix on U.S. Highways 60-70-80-89. Situated South of Scottsdale, West of Mesa and Northwest of Chandler, Tempe is centrally located in a county possessing 55 per cent of the state's population.

A motorist who passes through the city would notice two features: the deterioration of "downtown" Tempe and the presence of Arizona State University. The eye catches a startling contrast between the old and the new in downtown Tempe where some old stores with western facades stand vacantly decaying while others, purple-coated, are inhabited by "hippies" with commercial interests. Motorcycles and college students with books are seen nearly everywhere. Most motorists are surprised at the size and development of Arizona State University, now the largest institution of higher education in the state.

To see the substance of the community, one has to leave the main highways. A closer look at Tempe quickly brings forth the image of a typical American suburb: well kept, clean, neat houses with palm trees, desert lawns, swimming pools, and two-car carports. Little industry is seen by the observer. The people tend to be young and married.

The motorist will notice the large number of tract houses less than ten years of age. The land is flat and the trees are immature. The normal

precipitation is slightly less than 8 inches per year. The City boasts 210 clear and shiny days a year and an average annual temperature of 68 degrees. Temperatures might reach 117 degrees in the summer and 32 degrees in the winter. Tourists are noticeable in Tempe in every season.

Much of the community's social life is not externally visible at all. To see the action in the community one must be aware of the organizations and social groups attending to the affairs of the community. These activities take place in the city council, planning and zoning commission, school board, churches, private homes, schools and at Arizona State University. Many groups and committees keep the organized life of Tempe in motion.

Tempe is now one hundred years old. How did this rapidly growing suburb emerge from the desert and develop as it has? In this chapter we shall briefly investigate some historical events which shaped the destiny of Tempe.

Early Days of a Small Town

Man's contact with Tempe, Arizona, can be traced as far back as 1000 A.D. to 1400 A.D. Attention is directed toward an Indian people known as the Hohokam, which means "those who have gone," in the Pima Indian language. These people were builders of irrigation canals that drew water from streams to fields far from the original source of the water. Such projects have been traced to the Gila and Salt River Valleys, which includes the area now known as Tempe.

Through water control these people, who were excellent farmers, produced beans, corn, squash, and cotton in what was an arid land. It is believed some

form of water control or canal irrigation existed as early as 500 A.D. in Arizona, but it was at its height between 1000 A.D. and 1400 A.D. As a result of these canals the Hohokam had greater mobility in locating their villages.

An illustration of mobility for the canal period, involving the Tempe area, can be seen through the results of an excavation which indicated a large settlement of Los Muertos six miles south of Tempe. This excavation was made by Frank Hamilton Cushing in 1887-88, and it showed that hundreds of people lived in the desert six miles from the Salt River sustained by a canal.

The Hohokam exemplified man's capacity to challenge a harsh environment and turn it towards his favor, thereby setting the stage for the development of modern civilization. In the Southwest no other prehistoric people ever matched this feat. Many of the canals which they dug were redredged by the white settlers of the Salt River Valley, and are even now in use. According to Sidney R. DeLong, these canals and aqueducts compared favorably to those of the ancient Egyptians.[2]

By 1400 A.D. there were drastic climatic changes which caused a decline of the Hohokam as well as other groups in Arizona. Archaeologists know less about this period from 1400 A.D. to 1700 A.D. than the centuries before 1400 A.D. However, there are reasons to believe that the Pima and Papago Indians are modern descendants of these people.

In 1850, according to a Pima Indian calendar stick, Tempe was the scene of a battle between Apaches and Maricopas at the Butte. The Apaches were

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[2]Sidney R. DeLong, The History of Arizona (San Francisco: The Whitaker and Ray Company, 1905).

supposed to have been defeated. The Butte that is referred to as the scene of the battle is now the well known landmark of Tempe.

To an early frontiersman, this double butte could be seen as two hills rising abruptly from the surrounding ground more or less isolated in the midst of Arizona's great empty central desert. The richness of the soil in the Tempe area was indicated by the natural growth of palo verde, mesquite, ironwood, and giant saguaro cactus.

The entire surrounding area to which the City of Tempe belongs is presently known as the Valley of the Sun. It is a giant alluvial fan. When not irrigated, the vegetation consists mostly of creosote bush, cacti, and sagebrush, with variations according to a proximity to water.

Tempe has been known by many names since its early exploration by Charles Trumbull Hayden in 1870. It was sometimes referred to as Butte City, Hayden's Butte, Hayden's Ferry, Hayden's Mill, and ultimately as Tempe.

People no longer lived in the area of Tempe when Charles Hayden first viewed this territory. Mr. Hayden, who is known as the "Father of Tempe," was among the first of the pioneer builders who came to Arizona soon after the Gadsden Purchase. He arrived first in Tucson on the first overland coach known as the Butterfield Overland Mail Coach. As a founder and citizen of Tempe, he played the roles of freighter, merchant, miller, farmer and promoter of higher education. In addition, he was appointed as a Federal Judge in Tucson in 1858.

In his role as merchant, he was on his way to see about some supplies for the soldiers at Fort Whipple when he had to cross the Salt River. He was

forced to wait for two days to cross this river safely because it was in high flood at the base of the Butte. While he waited, he climbed to the top of one of the double hills and looked the country over. In later years he often told of what he dreamed about there on the butte-summit. He dreamed of bringing water from the river to the beautiful desert and founding his own town.

Mr. Hayden knew the soil was rich because there was an abundant growth of giant saguaro cactus, ironwood, mesquite and palo verde. He was convinced that this would be an ideal location for an irrigated farming area, and that the perfect site for the town would be at the butte-base beside the river crossing. He invisioned the long buried course of ancient canals left by the Hohokam as crisscrossed by irrigation canals. He thought of grain fields, painted farmhouses, and red barns replacing the drab desert. He thought of a town with a grainmill, a river-ferry, general store, shaded streets, and schools. He thought of Tempe as becoming an education center for Arizona and the Southwest.

Other pioneers had come before Hayden and had also seen the old Hohokam ditches, and had conceived of irrigating the Salt River Valley, too. They had also selected his chosen site for possible development. One of these groups had, as a member of their party, Lord Darrell Duppa, a classical scholar from a titled English family. He had said that the double butte and desert on the south bank resembled the "Vale of Tempe" in Greece. The Vale of Tempe is a beautiful valley between Mount Olympus and Mount Ossa in Thessaly, which in olden days was regarded as the chief seat sacred to Apollo. Through this valley the Peneus River flows into the Aegeon. The ancient poets described

it as the most delightful spot on earth, with cool shades, verdant walks, singing birds, a place so lovely that the gods often honored it with their presence. The Vale of Tempe is about five miles long, and in some places only a few hundred yards wide. Because valleys are mild and pleasant, many of them were called Tempe by ancient poets. Daphne, an early love of Apollo, lived in this valley and was changed into a laurel tree.[3]

Mr Hayden didn't know it at that time, but his chosen site which he called Hayden's Ferry was already being referred to in the southern part of the state as Tempe. Later, in 1879, when Tempe was chosen as the name for the town, it was done with the approval of Mr. Hayden. He said that the new name would save ink since it was not as long as Hayden's Ferry.

In 1971, when Mr. Hayden heard that Mr. W. H. Kirkland and Mr. McKinney were digging a canal near the butte, he drove up and furnished supplies for the canal. He also had a ditch dug around the butte in order to use the water for the flour mill he was building. The water, by dropping twenty-four feet, turned the big stones that ground the wheat into flour. Indians who had fields of grain near the Gila River brought their wheat to be ground. The flour mill that Charles Hayden established still thrives as Tempe's oldest industry. In addition, he established a ferry across the river, which accounts for the reason Tempe was often called Hayden's Ferry.

In Tempe, Mr. Hayden built a fine adobe house which he called Hayden House. This structure, which is now a restaurant and bar known as Casa Vieja,

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[3] J. E. Zimmerman, Dictionary of Greek Mythology (New York: Harper and Row, 1964), pp. 258-59.

is the original Tempe dwelling. Charles Hayden brought his new bride Sally Calvert Davis, who had taught school in Visalia, California, to live there. Here their famous son, the former U.S. Senator, Carl Hayden, was born. He attended the Tempe Grammar School and graduated from the territorial Normal School which his father had founded.

The Normal School was established in 1885, making Tempe the oldest educational center in the state. Judge Hayden and his wife were educationally minded, and they continuously looked for ways to improve their town.

The circumstances surrounding the building of the Normal School speak about the character of the early Tempe pioneers. There was a territory-wide shortage of teachers in the early 1880's which Mr. Hayden was aware of. In 1882, two proposals regarding education in Tempe were being discussed. One proposal was to establish a territorial university, the other to establish an institution to train teachers for public schools. Judge Hayden favored the normal school proposition. Though the university seemed the more glamorous, he felt the proposal was too premature. He regarded the Normal School as a prospective teacher training institution, and a school to teach agriculture and mechanical skills, since these were needed throughout the territory.

George Wilson, Tempe's town butcher, had a twenty-acre tract of land toward the saddle of Hayden's Butte, south of Mesa Road, which is now East Eighth Street. The land was Wilson's cattle pasture. At the meeting of loyal citizens, which had gathered to discuss a possible site for the Normal School, it was decided that George Wilson's pasture would be the best location. Wilson, a man of modest circumstances, couldn't afford to donate the land, but was

willing to sell five acres for the proposed school at the going price of $100 per acre. Later Mr. Wilson parted with his entire pasture because of his town loyalty, and he was impoverished as a result. This twenty-acre plot became the Normal School's original campus, and is the northern part of Arizona State University's campus today. The names of the Tempe pioneer donors for the first five acres were "Charles T. Hayden, Neils Peterson, George Wilson, Ben Goldman, Thomas Goodwin, James Goodwin, J. C. Priest, Joe Holmesley, Al Miller, Charles Bootzer, Bud Cummins, John Lawson, Bill Lewis, George Nichols, and Charley Roberts."[4] Though none could well afford it, these were the first to give support to what was eventually to become the Arizona State University of today.

A bill, strongly supported by Tempe's founder, Charles Trumbull Hayden, establishing a Normal School in the Territory of Arizona, was introduced at the Thirteenth Legislative Assembly of the Arizona Territory by John Samuel Armstrong. It was signed by Governor F. A. Tritle, on March 12, 1885, bringing into existence the institution known today as Arizona State University.

Other important events were also happening in Tempe. A small band of Mexicans moved into San Pablo, or Upper Tempe. They worked for Mr. Hayden and helped build the community. A group of Mormans moved into the village in 1885. They had many wives each and numerous children. An adobe school building to accommodate them was constructed at what is now 8th and Mill Avenue. Apaches were raiding in the mountain country, but few of them came

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[4]Ernest J. Hopkins and Alfred Thomas, Jr., The Arizona State University Story (Phoenix: Southwest Publishing Co., 1960), p. 51.

to the peaceful settlement. Nearby Papago, Pima, and Maricopa Indians showed an eagerness to adopt useful ways and were friendly to the whites. The Reclamation Act of 1902 initiated financing by the Federal government for the reclamation of desert lands. This act was responsible for establishing the Salt River Project, which was the first of its kind in the nation. In 1911, Roosevelt Dam and a series of other power facilities evolved from this program.

For Tempe large scale water development has been one of the basic factors contributing towards its growth. Another step in the progress of Tempe was marked through the coming of the railroad in 1887. By 1910 two branches of the Arizona Eastern Railroad had facilities in Tempe, one being the Phoenix and Eastern and the other the Maricopa and Phoenix Division.[5]

Life in early Tempe was difficult. The Salt River had intervals of being a peaceful, tranquil stream but at other times it was a raging torrent of water which tore out the brush dams and flooded the land. Not until the Roosevelt Dam was built was the river a dependable source of water. Tempe was a way station between the early settlements of Tucson, then the territorial capitol, and Prescott, situated in the north central part of the state. Supplies were brought in from these areas of the state to Tempe; transportation was overland on difficult roads. Wood was not plentiful except sage and cactus which could be used for heat, but not as a building material. The early homes were made of adobe and had dirt floors. Eventually wood was brought in from Prescott.

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[5]Arizona, The New State Magazine, Vol. I, No. 4 (December 10, 1910), p. 4.

Electricity was not available until around the turn of the century. The original flour mill was run by a water wheel driven by the Salt River. By 1911 the hotel had electricity and running water was available, being stored on the butte.

With temperatures ranging in the hundreds during the summer months, the early settlers adopted the Mexican custom of rising early in the morning and taking mid-day siestas until the latter part of the afternoon. At night they slept under the stars or on sleeping porches. The modern comforts of air conditioning were unknown and unthought of and until such comforts were available, growth in population was slow but steady. By 1916 Tempe was a cattle feeding and shipping center for the surrounding ranches and farms. With the building of roads and the loss of importance of Tempe as a river crossing, Phoenix continued to move ahead of Tempe in population. Travel between these two towns was slow and difficult.

From newspaper accounts of Tempe in 1910 and 1911, we find that the city of approximately 3,000 was a setting for nice home, wealth and educational opportunities. It was one of the first towns in Arizona to have cement sidewalks. The major industry at this time was Arizona Portland Cement. The Pacific Creamery Company which manufactured "Lily" milk products was also an important business enterprise. Dairying was influenced by the latter and the long growing season for alfalfa. The crops of major commercial value were cantaloupe, sugar beets and oranges as this was one of the few areas producing such commodities. The Arizona Mercantile Company was a major supply depot for goods produced in Arizona as well as other parts of the country and these were transported on the railroad. At this time there were strong and prosperous

banks along with such other enterprises as a harness maker, pharmacy, bakery, confectionary shop and hardware and grocery stores. Also there were real estate and insurance agents.[6] In 1910 a woolen mill was planning a move into Tempe for which the City invested $15,000 in land and building.[7] In 1911 Roosevelt Dam had been completed and the flow of the Salt River could now be kept under control. By 1917 the Salt River Project had impounded the waters of the Salt River, Tonto River and Verde River by the additional construction of Granite Reef Dam. This made it possible to develop agriculture throughout the Salt River Valley. At this time Butte County of which Tempe was to be the County seat did not materialize and Phoenix, due to road building and industrial development, became the county seat. Efforts to attract industry were not substantially effective and Tempe remained principally an agricultural center.

A Reluctant Suburb with a University

In 1900 Tempe was a town with a population of 885. Phoenix was six times larger. Since traveling was difficult, interaction between the two towns was not a daily occurrence. Separate communities with distinctive norms, power structures, and experiences emerged. People lived, worked, and played in their own town.

Seventy years later Phoenix increased to nine times the size of Tempe. Tempe became a suburb--a reluctant suburb with a university. There is an

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[6] Ibid., p. 3

[7] Arizona, The New State Magazine, Vol. 1, No. 5 (March, 1911), p. 10.

important difference between the all-new suburb and an established town invaded by suburbanites and turned into a reluctant suburb.[8]

The new, mass-produced suburb has to create its institutions--its schools, churches, civic organizations, shopping centers, and the like. The invaded town, on the other hand, is a going concern before the urban assault begins. It evolves a social system that works for a population of a certain size. There are enough schools, churches, clubs, stores, streets, and so forth to go around.

When the restless urban center discovers the little town and pumps a stream of suburbanites into its institutions, the social system tends to develop a split personality. Where the mass-produced, all-new suburb is faced with the problem of creating a community from scratch, the "sacked village" has a community already--but "it is soon divided between the pushy, progressive, plastic world of the newcomers on the one hand, and the accustomed world of the old-timers, the villagers, on the other."[9]

Wherever the urban spearhead presses the reluctant suburb, the suburb has little hope of surviving unchanged, for the forces behind metropolitan expansion are almost irresistible. Zoning requirements and legal barriers may delay, but they won't stop the assault.

Table 2-1 illustrates the growth of Tempe, ASU, and Phoenix since 1886. The major growth in Tempe started after World War II and has continued to

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[8]William Dobriner, Class in Suburbia (Englewood Cliffs: Prentice-Hall, 1963), pp. 127-128.

[9]Ibid., p. 128.

the present date. Phoenix grew faster at an earlier period than Tempe.

Table 2-1

Tempe, Arizona State University and Phoenix
Population Changes, 1886-1970

	Tempe		ASU		Phoenix	
	Number*	% Change	Number**	% Change	Number*	% Change
1886-7	---	---	33	---	---	---
1890	---	---	55	67	3,152	---
1900	885	---	131	138	5,544	76
1910	1,473	66	246	80	11,134	101
1920	1,963	33	290	22	29,053	161
1930	2,495	27	732	153	48,118	66
1940	2,906	17	1,479	102	65,414	36
1950	7,684	164	4,666	213	106,818	63
1960	24,897	224	12,913	177	439,170	311
1970	62,907	153	28,829	123	581,562	32

*United States Census of Population 1960: Arizona (Government Printing Office, Department of Commerce, 1960), p. 7. Also, 1970 Census of Population: PC(V1)-4 Arizona (U.S. Department of Commerce, Bureau of Census, December, 1970), p. 3.

**This figure is the academic year enrollment or the number of different students in first and second semesters only. Source: Arizona State University Enrollment Summary for Academic Year 1968-69 (Office of Registrar and Admissions, Arizona State University, 1969), p. 1.

The size of Tempe in 1970 approximates the size of Phoenix thirty years ago. Phoenix had a high growth rate of 311% in the 1950's but slowed down to 32% in the 1960's. The significantly decreased growth rate in the 1960's for Phoenix indicates the restlessness of the central city and the invasion of the suburbs. In the 1960's Tempe increased in size by 152%. A corresponding increase is seen in university enrollments during the same period of time. Thus, Tempe's historical roots are those of an agricultural town attempting to develop a training school for Arizona teachers. The population explosion in metropolitan Phoenix created a need for a full-fledged university and a "dormitory" for the families of its employees. Tempe, among several others, was adopted and became a suburb.

Governmental Organization

The population explosion had ramifications for the organization of government. Tempe began to modernize its decision-making machinery in 1964 to allow for greater professional management and citizen participation in community affairs.

At a special election held on May 25, 1964, the qualified electors of the City of Tempe selected fourteen of their number to serve as a Board of Freeholders with the task of formulating and presenting to the citizens of Tempe a proposed Charter. This task was to be accomplished within the short span of ninety days after the election. On August 20, 1964, the Board of Freeholders had completed their labors and presented the results as the Charter of the City of Tempe with twelve of the fourteen Freeholders subscribing their names to the document.

Following the legal requirement of publication of the proposed City Charter for a period of 21 days in a newspaper of general circulation in the community (in this case, the Tempe Daily News), a special election was called and held on October 19, 1964. The qualified electors ratified the Charter by a vote of 709 to 354, and on October 26, 1964, the then existing Council of the City of Tempe canvassed the returns and adopted Resolution No. 729 which confirmed ratification of the new Charter. On November 12, 1964, the Governor of the State of Arizona, Paul J. Fannin, approved the Charter, thus completing all formal requirements. It is this Charter which dictates the political organization and structure of the City of Tempe. It is this document which provides the channels through which flow ideas from the electorate to the decision-makers, and from the decision-makers through administrative channels into programs of action.

In order to understand the process of government in Tempe, a brief study of the political organization, as dictated by the Charter, is necessary. Tempe adopted a council-manager form of government. This has been a popular form of government for middle class, high growth, low minority communities of Tempe's approximate size. For cities between 50,000 and 100,000 in population, 53% have a council-manager form of government; 10%, a commission type; and 37%, a mayor-council arrangement.[10]

The council-manager type of government is the latest type to develop in the United States, most of its growth dating from the early Twentieth

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[10] The Municipal Yearbook (Chicago: International City Managers' Association, 1966), p. 90.

century. This form of government embodies the following primary characteristics: (1) a small council elected at large; (2) legislative and policy-making functions vested in the council; and (3) a professionally trained city manager employed by and subject to dismissal by the council. The city manager is responsible for administration of municipal affairs, and has the power of appointment and removal of personnel subject to civil service or merit system rules. He is also responsible for preparation and presentation of the budget to the council and must substantiate the requests of the various municipal functions and departments. Thus the city manager is the administrator and the elective council is the policy-making body.

Under this plan the office of mayor is maintained, and he presides over meetings of the council, serves as the ceremonial head of the city, and may be charged with the duty of preserving order in times of emergency. He is, of course, the political head of the city. In some cases the mayor is chosen by the council members from among their own membership, and sometimes he is elected directly by the municipal electorate. The modern trend would appear to lean toward providing for the direct election of the mayor, vesting veto powers in the hands of the mayor, and maintaining a high type of professional management of city affairs.

The Charter provides for a city council composed of a mayor and six councilmen selected at large. Each councilman and the mayor are required to be qualified electors of the City of Tempe and to have been a resident of the City or of an annexed area for at least the two years immediately preceding election. The term for councilmen is set at four years while the Mayor is

limited to a two-year term. Elections are held in each even-numbered year with the mayor and three councilmen elected at each such election. This results in staggered terms providing for continuity of thought and long-term programming. The Charter allows the council to set its annual compensation by ordinance and, in addition to compensation, each member receives reimbursement for actual and necessary expenses incurred in the performance of the duties of the office. The council also selects from among its membership a vice-mayor who presides over meetings of the council in the absence of the mayor and who fills a vacancy in the office of mayor should one arise, serving only for the unexpired portion of the term.

No councilman may hold any other elected public office or City employment during his term as councilman, and should a councilman whose term of office does not expire until after the date the next mayor takes office wish to run for the office of mayor, the Charter requires him to announce his resignation as councilman at least ninety days prior to the primary election at which he will run. Such resignation, however, does not take effect until the date the newly elected mayor takes office.

As is the case with most legislative bodies or bodies exercising legislative powers, the council is charged with the law-making and policy-making powers and duties for the City. However, there are important Charter provisions which limit the total powers of the council, one of which is the provision which states that no member of the council may dictate the appointment or removal of any city administrative officer or employee appointed by the city manager; however, they do have the power and authority to make inquiries and investigations, and

make recommendations to the city manager. Other than the latter expressed rights, however, the council members deal with the city employees through the city manager.

Vacancies in the council are filled at the next regular election and are for the remainder of the unexpired term unless the vacancy occurs less than sixty days prior to the primary election in which event the council fills the vacancy for the balance of the unexpired term. If the council fails to make the appointment within thirty days after a vacancy arises, a special election is called.

Regular council meetings are held the second and fourth Thursdays of each month. The council may also call such special meetings as they may deem necessary or advisable. The mayor is presiding officer at all council meetings, and four members in attendance are required to constitute a quorum for the transaction of council business. All meetings are open to the public but the council may recess for the purpose of holding a closed or executive session. At such an executive session the Charter provides that no formal or official action may be taken; all official actions must be taken in open meeting, but the council may discuss such matters as litigation in which the city is a party, real estate transactions, or any matter which might tend to defame or prejudice the character or reputation of any person.

All meetings being open to the public by Charter mandate, it is the responsibility of the citizen to attend or not be heard to complain. The Assistant City Manager advises that council meetings are regularly attended by the public, an average of twenty-five persons attending. Of course this figure varies depending

upon the public interest generated in the issues to become before the council at any given meeting.

The city manager is the most important appointment to be made by the city council, and he is appointed for an indefinite term and at such compensation as the council may decide. With the assistance of the city manager the council also appoints the city clerk, the city magistrate, the city attorney, and also may designate, subject to approval of the council, a city administrative officer as acting city manager to serve in the absence of the city manager. The city manager does not need to be a resident of the City at the time of his appointment and is given six months to establish City residence from the date of his appointment. He can be removed with or without cause at any public meeting by a majority vote of all council members; however, he is entitled to a public hearing. The city manager is the chief administrative officer for the city and is responsible to the council for the administration and coordination of all city affairs. He may appoint and suspend or remove all city employees and appointive officers except as otherwise provided by law, the City Charter, or personnel rules adopted pursuant to the City Charter. In general it may be said that the city manager takes charge of and directs city government under policies established by the council.

It is within the jurisdiction of the city council to establish city departments, offices or agencies in addition to those prescribed by the Charter, and to set forth the powers and duties thereof, but any department, office or agency so established is under the supervision of the city manager and will be administered by an officer appointed by and subject to the direction of the city manager. All

appointments and promotions of city officers and employees are to be made on the basis of merit system principles. The agency heading up the merit system is a three man board appointed by the city council for three year staggered terms. The city manager appoints the personnel manager or officer who prepares personnel rules for presentation to the merit system board. The board, after consideration, transmits the proposed rules to the city manager for his review. In turn the city manager refers the rules to the city council for its final approval or rejection. The merit system rules must encompass such matters as classification of all city positions, a pay plan, and the other usual provisions found in most merit system plans.

The city council, by ordinance, has the power to create or abolish such boards or commissions as in its judgment are required, and may grant them such powers and duties as it may deem proper so long as they are not inconsistent with the terms of the City Charter. The mayor is charged with the responsibility of appointing all board and commission members with the approval of the council. The terms of board and commission members so appointed may not exceed three years, and no board or commission member may serve more than two complete consecutive terms. The present library board and its director maintain a completely autonomous stature, and while the city manager does not hire for the library board their budget is still appropriated by the city council.

The regular city elections are held the second Tuesday in May of each even-numbered year and are preceded by a primary election held on the fifth Tuesday prior to the date of the regular city election. The council has by

ordinance provided that at the primary election any candidate who receives a majority of all votes cast at such election shall be declared elected and will not have to stand at the regular city election.

Any five qualified voters of the City of Tempe may commence initiative or referendum proceedings by filing with the city clerk an affidavit stating they are willing to constitute the petitioners' committee and will be responsible for circulating the petition. Upon receipt of this affidavit the city clerk forthwith issues the appropriate petition blanks to the petitioners' committee. Similar procedures are followed for recall proceedings.

Charter amendments may be initiated by the city countil, the initiative process, or by a charter commission created by ordinance. All proposed amendments to the city Charter are to be submitted to the qualified electors of the City of Tempe at a general election, or at a special election called for that purpose and, if approved by the electorate, are submitted to the governor of the State of Arizona for his approval. Such approval is a matter of form and it is inconceivable that the governor would, in the absence of a clear-cut constitutional mandate or error, fail to approve any measure so approved by the electorate of any city or town.

Chapter 3

A DEMOGRAPHIC DESCRIPTION

The social structure of a community has long been known by social scientists to affect participation in civil affairs. In this chapter we shall examine: length of residence, occupational status, social class, work location, income, income source, educational attainment, home ownership, ethnicity, marital status, sex, and age characteristics of Tempe as they relate to voting eligibility.

Tempe Population Characteristics

Length of residence

A considerable number of studies have found that the longer a person resides in a community the higher the probability that he will get involved in community affairs.[11] Table 3-1 shows the length of residence of citizens in the 1969 and 1970 studies. Only one-fifth of the population has lived in Tempe for more than ten years. It is striking that 62 per cent of the 1969 voting eligibles have lived in Tempe less than six years, while 73 per cent of the 1969 voting ineligibles and 59 per cent of the 1970 voting eligibles have

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[11]Lester Milbrath, Political Participation (Chicago: Rand McNally, 1965), p. 133.

lived in Tempe less than six years.[12] Almost three out of every five persons ineligible to vote in 1969 were disqualified on the basis of the residence requirement. No statistically significant difference was found between the 1969 and 1970 distributions of eligible voters.

Table 3-1

Length of Residence by Voter Eligibility
1969 and 1970 Studies

Length of Residence	Eligible 1969 Voters	Ineligible 1969 Voters	Eligible 1970 Voters
Less than 6 months	0%	59%	0%
6 months to 1 year	19	3	14
1 to 2 years	20	9	20
3 to 5 years	23	5	25
6 to 10 years	16	4	21
Over 10 years	22	20	20
Total percentage	100%	100%	100%
Total number	(462)	(115)	(521)

How important is length of residence in creating more participation in civic affairs? In the 1970 survey, the researchers asked whether the respondents had voted in the 1970 city election and in the city school bond election. We formed a city voting scale ranging from low, medium, to high. Those classified as "low" voted in neither election. Those classified as "medium" voted in one election, and "high" voters were those who voted in both elections.

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[12]The 1969 and 1970 eligible voters consisted of those persons who were: (1) over 21 years of age; (2) U.S. citizens; and (3) residents of Tempe for more than 6 months. The 1969 ineligible voters were those residents who were over 21 years of age but failed to qualify as either U.S. citizens or 6-month residents. The 1970 sample consisted only of eligible voters.

In Table 3-2 we found that persons with more than six years of residence in Tempe were twice as likely to score high on city voting as those with less than five years residence. The table was statistically significant at the .01 level.

Table 3-2

Community Voting by Length of Residence, 1970

City Voting	Length of Residence	
	5 Years or Less	More than 6 Years
Low	67%	36%
Medium	24	43
High	9	21
Total percentage	100%	100%
Total number	(305)	(215)

Occupational status

The researchers applied Hollingshead's occupational-status scale as a measure of social position for heads of households in the community.[13] In Table 3-3 the median value for eligible voters was located in the fourth position of the scale, clerical and sales workers, technicians and little business owners. We discovered that the median value for ineligible voters, however, was found in the sixth position, machine operators and semi-skilled employees. The modal occupational category for both eligibility distributions was the students. Less than three per cent of the eligible voters and two per cent of the ineligible voters were on relief or unemployed.

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[13]Charles Bonjcen, Richard Hill and S. D. McLemore, Sociological Measurement: An Inventory of Scales and Indices (San Francisco: Chandler Publishing Company, 1967), pp. 442-448.

Table 3-3

Occupational Distributions for Eligible and Ineligible Voters, 1969

Occupational Status	Eligibles	Ineligibles
Higher executives, proprietors of large concerns, major professionals	12%	9%
Business managers, minor proprietors, lesser professionals	14	8
Administrative personnel, small independent businesses	13	15
Clerical and sales workers, technicians, little businesses	13	11
Skilled manual employees	13	3
Machine operators and semi-skilled employees	5	7
Unskilled employees	3	3
Students	15	30
Retired	8	12
Relief and unemployed	3	2
Other	1	0
Total percentage	100%	100%
Total number	(462)	(115)

Social class

Three methods are commonly used to measure the social class system of communities: (1) the objective method; (2) the subjective method; and (3) the reputational method. The subjective method was used in the 1970 study of Tempe. According to this method, the investigator defined social class in terms of how the members of the community saw themselves in the status hierarchy.[14] Few citizens thought of themselves as belonging to either the upper class or the lower class. Four out of every five respondents indicated they were members of the middle or the upper middle class.

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[14]The item asked was: "By and large do you think of yourself as being of the upper class, upper middle class, middle class, working class, or lower class?"

Work location

Previous studies have found that when a large sector of the population leaves the community to work elsewhere the potential for community identification is decreased.[15] We found surprisingly few--only 38%--of the heads of households work in Tempe. Almost as many (31%) work in Phoenix. Eight per cent work in Scottsdale and 4% work in Mesa. Cities with so many persons leaving in the morning and returning in the evening are often called dormitory suburbs. To some extent at least, Tempe falls into this category.

Income

Income is often found to be positively associated with political participation.[16] The median gross family income for Tempe for 1968 was approximately $8,500 for eligibles and $6,000 for ineligibles. Table 3-4 shows that 12% of the eligibles and 20% of the ineligibles were under $3,000 income per year. The table also indicates that 10% of the eligibles and 8% of the ineligibles earned more than $15,000.

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[15] P. Jacob, et. al., The Integration of Political Communities (Philadelphia: Lippincott, 1964).

[16] Milbrath, op. cit., p. 120.

Table 3-4

Gross Family Income for Eligible and Ineligible Voters, 1969

Income	Eligibles	Ineligibles
Under $3,000	12%	20%
$3,000 to $4,999	12	15
$5,000 to $6,999	15	15
$7,000 to $9,999	21	16
$10,000 to $14,999	24	13
$15,000 and over	10	8
Refusal	2	4
Don't know	3	10
Total percentage	100%	100%
Total number	(462)	(115)

Income source

How do Tempeans earn their incomes? Sixty-five per cent of the eligibles earn their living from a salary, while 18 per cent earn their living from hourly wages. Four per cent derive their income primarily from investments, 6 per cent from pensions, 1 per cent from parents, and 1 per cent from welfare or relief.

Education

Many investigations have found that the level of education in a community affects the level of participation in civic affairs.[17] Tempe is recognized as an educational center in Arizona. Having the state's largest university and a highly respected public school system, Tempeans feel strongly about having quality education at all levels.

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[17]Ibid., pp. 122-124.

Table 3-5 shows the highest grade of school completed by the head of the household for the 1969 survey.

Table 3-5

Highest Grade of School Completed by Head of Household for Eligible and Ineligible Voters, 1969

Highest Grade Completed	Eligibles	Ineligibles
0 to 8 years	8%	9%
1 to 2 years high school	7	4
3 to 4 years high school	21	20
Technical/trade school	2	2
1 to 2 years college	15	26
3 to 4 years college	23	20
More than 4 years college	23	17
Refusal	0	0
Don't know	1	2
Total percentage	100%	100%
Total number	(462)	(115)

This table indicates that Tempe residents had high educational attainment with a median completed education score of two years of college. The median education for non-voters was slightly lower. The presence of Arizona State University was reflected by one-fourth (23%) of the voters having had more than four years of college education and 46 per cent having had more than three years of college education.

Dwelling units

Home ownership constitutes a major investment in the life of a family and affects its expectations about the future of a community. For many years

now community studies have found that home owning increases the likelihood of community participation.[18]

Table 3-6

Home Ownership and Voting Eligibility, 1969 and 1970

Home Ownership	City	1969 Study Ineligibles	Eligibles	1970 Study Eligibles
Owners	50%	17%	59%	71%
Renters	49	82	40	28
Dk/Na	1	1	1	1
Total percentage	100%	100%	100%	100%
Total number	(577)	(115)	(462)	(520)

The 1969 survey indicates that citizens ineligible to vote tended to be renters while citizens eligible to vote tended to be owners of houses. In 1969 about half of all eligible and ineligible residents owned and half rented, according to the survey. But the 1970 summer survey, including only those residents of Tempe eligible to vote, indicated 71 per cent were owners, compared to 59 per cent found in 1969. The Tempe housing boom appeared to have had substantial impact upon the type of housing selected by newcomers.

Increased proportions of home owners might very well portend more active involvement in community affairs, if the findings in the social science literature have any bearing upon the situation in Tempe and if the present trend toward greater ownership of housing increases.

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[18]Ibid., p. 133.

Ethnicity

Racial factors are often associated with participation rates and tension in the community.[19] Ninety-two per cent of the 1969 eligibles and about the same for ineligibles (91%) were Caucasian. Six per cent of the eligibles were Mexican-American, one per cent black, and one per cent Indian.

Marital status

Of the voting sample, 14 per cent were never married, 73 per cent were presently married, 7 per cent were divorced, 1 per cent were separated, and 5 per cent were widowed. Statistically significant differences between the 1969 and 1970 studies did not appear on this item.

Sex

Forty-five per cent of the respondents in the 1969 voting sample were male and 55 per cent were female.

Age

The age of residents affects community participation. Two related and substantial generalizations are: (1) participation rises gradually with age, reaches its peak and levels off in the forties and fifties, and gradually declines above sixty; and (2) the most apathetic group is the young unmarried citizens who are only marginally integrated into the community.[20]

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[19]Ibid., pp. 138-141.

[20]Ibid., pp. 134-135.

In Tempe two out of every five residents eligible to vote were under the age of thirty in the 1969 and 1970 surveys. The median age of voting eligibles in 1969 was 32 years and 34 years in 1970. The over 60 category constituted 8 to 9 per cent of the voting population.

Tempe and Other Arizona Cities

The data presented in the Tempe survey consisted of responses from persons over twenty-one years of age. Other data sources should be used to obtain insight into other population characteristics. Two such studies are the U.S. Census and Inside Phoenix.[21]

The city growth rates are located in Table 3-7. Arizona increased 34.4 per cent in the last decade. At the same time Maricopa County, Tempe's county, grew by 45.1 per cent. Tempe's growth rate of 152.3 per cent,

Table 3-7

City Population Changes

City	1970	1960	% Change
Phoenix	581,562	439,170	32.1
Scottsdale	66,852	10,026	566.8
Tempe	62,907	24,897	152.3
Mesa	62,449	33,772	84.9
Glendale	35,771	15,696	127.9
Wickenburg	2,640	2,445	8.0
Chandler	13,549	9,531	42.2
Gila Bend	1,726	1,813	-5.0

Source: Preliminary 1970 census figures

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[21] U.S. Bureau of the Census, U.S. Census of Population: 1970, Number of Inhabitants, Arizona (Washington, D.C.: U.S. Government Printing Office, 1970), and Inside Phoenix (Phoenix: Arizona Republic and Phoenix Gazette, 1970).

surpassing county and state rates, was higher than any other major city in Arizona except Scottsdale whose increase was 566.8 per cent.

Another source of information about the immediate environment of Tempe is the Arizona Republic marketing survey, Inside Phoenix. Table 3-8 summarizes demographic information for the metropolitan Phoenix area, Tempe, and Scottsdale. The figures from Tempe varied somewhat from the Survey Research Center survey because: (1) the Arizona Republic sampled a different universe; (2) normal sampling fluctuations in both surveys exist; and (3) the samples were taken at different points in time.

One outstanding feature of the table is the comparative youthfulness of Tempe residents. The median age for Tempe (not just voting eligibles but all Tempeans) is 22 years but nearly 25 for Metro Phoenix and Scottsdale. Fifty-two per cent of the heads of households are under 35 in Tempe, but only 30 per cent in Metro Phoenix and 27 per cent in Scottsdale. Tempe has a higher percentage of newcomers, new homes, persons with higher education, and renters than Metro Phoenix or Scottsdale. The pattern of low percentage of racial minorities in suburbs compared to inner city rates, a pattern found throughout the country, was manifest.[22]

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[22] Thomas Dye, Politics in States and Communities (Englewood Cliffs, Prentice-Hall, 1969), pp. 191-192.

Table 3-8

Demographic Comparisons of Metro Phoenix, Tempe and Scottsdale

	Metro Phoenix	Tempe	Scottsdale
A. Persons per household	3.4	3.5	3.6
B. Median age	24.7	22.5	25.7
C. % of household heads under 35	30.	52.	27.
D. % non-white	11.	6.	3.
E. % retired	18.	9.	14.
F. % newcomers less than 1 year	12.	18.	13.
G. % household heads with college degree	20.	41.	30.
H. Median household income	$8,823.	$10,484.	$11,918.
I. % renters	32.	36.	26.
J. Median home valuation	$17,063	$19,773.	$23,229.
K. % homes less than 5 years	17.	34.	23.

1. Source: Inside Phoenix: 1970, published by Arizona Republic and Gazette. Information on line "A" may be found on page 5; B, p. 6; C, p. 7; D, p. 9; E, p. 10; F, p. 12; G, p. 15; H, p. 21; I, p. 43; J, p. 44; and K, p. 47.

2. The sampling error for the Metro Phoenix sample is estimated by the Republic to be 1.7% with a 95% confidence interval. Although a sampling error for Tempe and Scottsdale was not provided in the study, this researcher would estimate that with a sampling fraction of 1.2% of households the sampling error would approach 7.5% at 95% level of confidence in both Tempe and Scottsdale.

Conclusion

Many different types of people live in a community such as Tempe. The residents of this city also share many characteristics. Since many officials, consultants, and residents would like to have a miniature "picture" of Tempe, we might attempt to construct a profile of the "average" Tempean, acknowledging the variations in the population and the hazards of the attempt.

We might infer, then, that the "average" Tempean who is eligible to vote:

1. had lived in the city less than five years;
2. had the occupational status of a sales worker, technician, or small business proprietor;
3. identified himself as middle class;
4. did not hold a job located in Tempe;
5. had a 1968 gross family income of $8,500;
6. earned his income primarily from salary;
7. had one to two years of college education,
8. owned a house;
9. was white; and
10. was between 32 and 34 years of age.

Chapter 4

SUBURBAN POLITICAL PARTICIPATION

Apathy in Local Government

Many writers have considered the suburb as "the Republic in miniature," the location for the revival of Jeffersonian democracy.[22] These authors argue that with smaller size goes smaller organization, less red tape, and greater citizen contact with the city council and heads of departments. Also, the relative similarity of residents produces common interests and a sense of community which is often lacking in larger cities. Finally, government, according to some, is more responsive to the peoples' needs because it is more accessible to all the citizens.

These perceptions of suburban participation are not supported by evidence from the studies relating to this topic.[23] Sample surveys, for example, in St. Louis County indicate that suburbanites are not any more interested in their local elections than those of the central city, that there is less competition for political office and that there is a smaller proportion of residents that know

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[22]Robert Wood, Suburbia: Its People, and Their Politics (Boston: Houghton Mifflin Co., 1959).

[23]Scott Greer, Governing the Metropolis (New York: John Wiley, 1962), pp. 87-89; and Roscoe C. Martin, Grass Roots (New York: Harper and Row, 1964); and Thomas R. Dye, Politics in States and Communities (Englewood Cliffs: Prentice-Hall, Inc., 1969), p. 224.

they can vote for school board officials. Thus, suburbia, far from being the bastion of democratic participation, engages the interest of only a small proportion of the population.

The relatively low interest and informational level about the community affects the suburbanite's turnout in local elections. While two-thirds of the nation's registered voters usually vote in presidential elections, only 30 to 50 per cent turnout to vote in local elections.[24] Low voter turnout generally has a conservative influence on local government.[25] A low voter turnout means that people at lower social economic levels have not participated in the election. In other words, the lower the turnout, the more overrepresented are the higher socio-economic groups. Because of this disproportionate over-representation of higher socio-economic groups, city officials tend to be disproportionately concerned with the attitudes of middle class voters in contrast to lower class non-voters.

Another factor affecting low voter turnout is nonpartisan municipal government. The Municipal Yearbook indicates that the median voter turnout for partisan cities was 50 per cent, while the median voter turnout for nonpartisan cities was 30 per cent.[26] Partisan campaigns tend to increase voter turnout partly because party workers have a "cause" and partly because the voter is able to pick up more "cues" about the issues from the parties. Since the decrease in voter turnout from partisan to nonpartisan elections occurs, a

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[24] Only 35.5 per cent voted in the May 12, 1970 Tempe general elections.

[25] Dye, op. cit., pp. 224-226.

[26] Municipal Yearbook (1963), p. 83.

nonpartisan local election system tends to have the effect of increasing the influence of the middle class voters in city government.

Voter turnout is also affected by the times at which the election is held and by the form of government. If the city elections are held at "odd" times of the year (rationale: to separate local from state and national issues), then voter turnout is decreased and the influence of middle class groups rises, as they are more likely to vote in "off" period elections. Voter turnout further varies with the type of government. Turnout is higher in those cities having a mayor-council form of government than a council-manager form of government. Also separate municipal elections--part of the municipal reform movement--tend to operate so as to reduce turnout and thereby strengthen the influence of middle class voters at the polls.

Political Attitudes

The researchers attempted to ascertain party identification among those interviewed in the 1970 survey. Fifty-one per cent identified themselves as Republican; 37 per cent, Democrat; and 12 per cent, Independent.

Table 4-1

Party Identification, 1970

Strong Republican	13%
Weak Republican	25
Independent Republican	13
Independent	12
Independent Democrat	11
Weak Democrat	16
Strong Democrat	10
	100%
	(514)

A canvass of Tempe voter registration supplied by the Maricopa County Election Board showed 51 per cent registered Republican, 45 per cent registered Democrat, 1 per cent Nonpartisan and 3 per cent registered Other.

Since Tempe residents tend to identify themselves as Republicans and register more frequently as Republicans, we might expect them to identify their political orientation as more conservative than liberal. We were able to classify the ideological orientations of Tempeans into seven categories. Almost twice as many Tempeans thought of their ideological stance as basically conservative as opposed to liberal. Fifty-six per cent considered themselves conservative; 12 per cent, as purely middle-of-the-road, and 32 per cent, as liberal.

Table 4-2

Ideological Orientation, 1970

Category	Per Cent
Strong conservative	12
Weak conservative	24
Middle-of-the-road conservative	20
Middle-of-the-road	12
Middle-of-the-road liberal	15
Weak liberal	10
Strong liberal	7
	100%
	(505)

The strength of ideological conviction affected the degree of party identification. We found the stronger the identification with the conservative point of view, the greater the probability of stronger Republican identification.

Eighty per cent identifying themselves as strong conservatives also indicated they were Republicans (strong, weak or independent), while only 25 per cent of the strong liberals identified their party affiliation as Republican. Similarly, 17 per cent of the strong conservatives as compared to 70 per cent of the strong liberals identified themselves as Democrats (strong, weak, or independent). We, therefore, found a clear ideological distinction between the Republican and Democratic parties' followers in Tempe.

Table 4-3

Party Identification by Ideological Orientation, 1970

	SC	WC	MRC	MR	MRL	WL	SL
SR	35%	24%	11%	3%	1%	4%	3%
WR	32	35	26	12	25	16	11
IR	13	15	17	18	9	6	11
I	3	7	13	25	12	14	5
ID	2	4	3	10	25	20	24
WD	3	10	22	18	21	24	16
SD	12	3	7	13	8	16	30
	100%	100%	100%	100%	100%	100%	100%
	(60)	(119)	(97)	(60)	(77)	(50)	(37)

Abbreviations:

SC - Strong conservative
WC - Weak conservative
MRC - Middle-of-the-road conservative
MR - Middle-of-the-road
MRL - Middle-of-the-road liberal
WL - Weak liberal
SL - Strong liberal

SR - Strong Republican
WR - Weak Republican
IR - Independent Republican
I - Independent
ID - Independent Democrat
WD - Weak Democrat
SD - Strong Democrat

Factors Related to Political Participation: The 1969 Study

The political participation scale consisted of the answers to five questions. We asked whether the respondent: (a) was a registered voter; (b) had ever voted in a Tempe election; (c) had ever circulated a petition in Tempe concerning any of the sixteen civic issues; (d) had ever contacted city officials concerning these issues; (e) had ever belonged to any groups concerned with these issues. If a respondent had done none of these, he received a score of zero; if he had done one, he received a score of one; if two, a score of two and so forth.

Table 4-4 shows the frequency of activity on each of these items. The table indicates that 76 per cent of the qualified voters registered to vote, 51 per cent voted in a Tempe election, 11 per cent circulated a petition, 31 per cent contacted a city official concerning one of the issues, and 13 per cent belonged to an organization concerned with one of the issue problems. All of these figures except one was typical of responses obtained from other cities in the United States.

The one interesting statistic was the amount of contact with city officials. The average in most cities throughout the United States is approximately 13 per cent. In Tempe, however, more than 31 per cent or twice as many of the households had some personal contact with governmental officials. Considering the constant growth of the community and the newness of many members of the community, the accessibility of citizens to the city decision-makers was quite high compared to other cities. Since the voters tended to view Tempe as a

small town, they acted as one would in a small town: if you don't like something, get on the phone and make your needs known to the government.

Table 4-4

Tempe Political Participation, 1969

	Yes	No
Registered voter	76%	24%
Voted in Tempe election	51	49
Circulated petition	11	89
Contacted city officials	31	69
Belong to organizations	13	87

Party registration was the variable most highly related to political participation. This was due in part to registration being an item on the participation scale. Of the high participators, the Democratic Party scored the highest with 42 per cent. The Republicans were close with 39 per cent. Third was the New Party with 20 per cent. Fourth were "Others" with 14 per cent. Fifth, the American Independent (Wallace) and Independent parties tied with 8 per cent and the non-registered voters came in last with only 1 per cent scoring among the higher participators in the City.

Length of residence was also highly related to participation in community affairs. The longer people lived in Tempe, the more likely they were to participate. Citizens living in Tempe for more than ten years were five times as likely (45%) to be high participators as those living in Tempe between one and two years (22%).

Reading the Tempe Daily News was highly related to high participation activities. Thirty-eight per cent of the high participators came from people

who had read the local paper at least once a week, whereas only 22 per cent of the non-readers of the paper became high participators. Listening to the Tempe radio stations had some impact but not nearly as much as reading the newspaper. Many residents of Tempe could not identify which radio station was a Tempe station.

Age was associated with participation. The highest percentage of non-participators came from those between 21 and 30 years of age. This finding is repeated in most cities. People in this age grouping are very busy with new occupations and family responsibilities. The highest percentage of high participators came from those between 41 and 50 years of age. The percentages declined with decreasing and increasing age. Part of the explanation for this is that as people become established in the community and as they acquire property interests and as their children grow older, they become more active politically to secure their interests in the system. With increasing age, however, their family responsibilities decline as well as their interest in politics; and health limitations curb many activities.

Work location was also related to political participation. Thirty-two per cent who worked in Tempe were high participators. About the same per cent of those who lived in Tempe but worked in Phoenix were high participators. Working in Mesa decreased the probability of being a high participator by ten per cent. The interesting finding was that working in Scottsdale increased the percentage of participators by eight per cent. People who worked in Scottsdale were more likely to participate in Tempe's affairs than any other grouping including even those who work in Tempe. This was a peculiar finding,

particularly coupling it with the previous finding that people who worked in Scottsdale were likely to have a less positive image of Tempe than any other grouping.

Political participation was directly related to income. The higher the income, the more likely it would be that one would participate in community affairs. This was entirely consistent with findings in other cities. Tempeans who earned over $15,000 were four and one-half times as likely to be high participators as those earning less than $3,000 income per year.

Political participation had some fascinating effects upon the voters' consideration of which issues were important, which issues they thought the city government was doing a good job on, and which issues they thought the city could do something about. As for juvenile delinquency, high participators were twice as likely to think of this issue as important as low participators. High participators were three times as likely to think that beautification was an important issue than low participators. The same relationship held with air pollution as an issue. Higher participators were more likely to think the police were doing a good job than lower participators. Higher participators valued the schools to a greater extent than lower participators.

Factors Related to Political Participation: The 1970 Study

A Tempe voting participation scale was constructed on the basis of whether respondents had voted in the Tempe general election on May 12, 1970, and the school bond issue election on July 7, 1970. Forty-one per cent of the sample claimed that they had voted in the city election. Actual turnout figures were

35.5 per cent. Twenty per cent claimed voting participation in the school bond election. Those persons indicating they had voted in neither election were identified as low voting participators. Those voting in one election were called medium voting participators; and those voting in both elections, high voting participators. Only 14 per cent scored high on voting participation. Thirty-two per cent achieved a medium participating status, while 54 per cent were rated as low voting participators.

Who were the voting participators? Party identification did not account for voting variation. Democrats were just as likely to vote as Republicans. Ideology appeared as a more potent factor. Liberals (64%) were more likely to be low voting participators than middle-of-the-roaders (55%) or conservatives (48%).

Another form of participation is service on community committees. The researchers asked the following question: "The city is trying to encourage greater citizen participation in community affairs. Would you like to participate on a committee such as one on juvenile delinquency, air pollution, poverty, or zoning?" Seventy-one per cent said "yes;" 26 per cent, "no;" and 3 per cent did not know whether they would or not. Again, party identification failed to account for variation in responses. This time, however, ideology had the reverse effect. Liberals (79%) were slightly more willing to serve on these community committees than conservatives (68%).

Every year the Chamber of Commerce sponsors a Tempe leadership conference. On the basis of the list of participants in the conference, we might draw some conclusions about the strata from which Tempe hopes to draw its

future leaders. Table 4-5 shows the proportion of voters from the 1969 study in each occupational category and the proportion of leadership training participants in each category. The results suggest that the leadership conference participants were not representative of the community. The participants tended to represent only the higher occupational categories.

Table 4-5

Occupational Status of Tempe Voters and Tempe Leadership Conference Participants

Occupational Status	Tempe Voters	Leadership Conference
1. Higher executives, proprietors of large concerns, major professionals	13%	46%
2. Business managers, minor proprietors, lesser professionals	14	39
3. Administrative personnel, small independent businesses	13	6
4. Clerical and sales workers, technicians, little business owners	13	0
5. Skilled manual employees	13	0
6. Machine operators and semi-skilled employees	5	0
7. Unskilled employees	3	0
8. Students	15	7
9. Retired	8	1
10. Relief and unemployed	3	0
	100%	100%
	(462)	(84)

Home ownership was found to be related to voting participation. Eighty-seven per cent of those who rented their dwelling unit compared to 42 per cent who own their dwelling unit scored low on the voting participation scale. Home

ownership, then, probably anchored the individual to his community. He had an investment and he expected to protect it through the vote.[27]

The 1970 Election

Students participating in the 1970 survey of Tempe were interested in determining citizen reaction to student participation in political campaigns. We asked the following question: "Many university students are interested in working in political campaigns for candidates this year. Would you say you generally approve or disapprove of this kind of activity for students?" Eighty-nine per cent of the respondents approved of this statement. Republicans were just as likely to approve of the participation of students in campaigns as Democrats. Conservatives (86%), however, were less likely to approve than Democrats (96%). In general, most voters supported student involvement.

The students then wondered whether residents would tend to react negatively toward candidates who had many students working for them in the campaigns. The following question was asked: "Would you tend to vote for or against a candidate if you saw many students were working in his campaign?" Seventy-six per cent of the respondents indicated that it would make no

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[27]Banfield and Wilson examined returns on 35 expenditure proposals voted on in 20 separate elections in 7 cities, and their findings give strong support to the theory that property owners and non-property owners differ consistently over municipal expenditure proposals. The voters in non-homeowning districts almost invariably supported all proposals. Support for expenditure proposals consistently declined with increases in homeownership. They found homeowners disliked public expenditures financed from property taxes more than non-homeowners. James Q. Wilson and Edward Banfield, "Public Regardingness as a Value Premise in Voting Behavior," American Political Science Review, 58 (December, 1964), p. 878.

difference and four per cent did not know. Sixteen per cent said that they would probably vote for the candidate while only four per cent said they would vote against the candidate. In other words, student involvement by itself would tend to help rather than hinder the development of a favorable attitude toward a candidate on the part of the public. Extreme deviations in dress and demeanor on the part of students, however, would probably be damaging to the candidate's image.[28]

Since the nature of the relationship between the university and the community has been critical for effective education, we inquired into public response toward the matters of demonstration and dissent. We asked first whether students should be allowed to demonstrate peacefully. Eighty-three per cent indicated yes; 14 per cent, no; and 3 per cent, they did not know. Democrats (86%) were slightly more likely to allow peaceful student demonstration than Republicans (80%). Liberals (93%) were more likely to allow them than conservatives (79%). We also tried to determine the feeling toward the firing of Professor Morris Starsky of the Philosophy Department at Arizona State University. Forty-nine per cent favored the firing, 27 per cent opposed, and 24 per cent did not have a feeling one way or the other. So, for those who had an opinion, the feeling in Tempe among eligible voters was 2 to 1 in favor of the firing.

The voting inclinations of Tempeans can be inferred in part from precinct results of the 1970 general election. Tables 4-6 to 4-14 show the registration,

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[28]Paul Van Riper, Handbook of Practical Politics (New York: Harper and Row, 1967).

turnout, total vote, and proportion of the vote for the top state offices for each precinct in Tempe. Gaudalupe and Kyrene are omitted from the tables. Tempe 6, 22, and 1 were the precincts with the highest proportion of registered Democrats (Table 4-6), while Tempe 24 and 19 had the highest proportion of registered Republicans (Table 4-7). The precinct with the largest number of voters was Tempe 20 with 1,592 registered voters; and the smallest precinct was Tempe 24 with 525 registered voters (Table 4-8).

Voting turnout varied from a high of 83 per cent in Tempe 19 to a low of 40 per cent in Tempe 14 (Table 4-9). Higher voter turnout was positively associated with a higher proportion of registered Republicans (r = .50). Precincts with higher proportions of students appeared to have lower turnout rates.

Governor Jack Williams won 19 out of the 24 precincts listed (Table 4-10). His strongest showing was 61 per cent of the vote in Tempe 21 and 24. His weakest area was Tempe 6 with 26 per cent of the vote. Republican registration had a .80 correlation with the vote for Governor Williams.

Incumbent Senator Paul Fannin won 20 of the 24 precincts (Table 4-11). He was most victorious in Tempe 17 with 73 per cent and least successful in Tempe 6 with 27 per cent. Per cent Republican registration and per cent vote for Fannin had a correlation of .82.

Congressman John Rhodes won 22 of the 24 precincts (Table 4-12). His greatest margin of victory was in Tempe 17 with 79 per cent of the vote while his greatest loss was in Tempe 6 with 40 per cent of the vote. The correlation coefficient relating per cent Republican registration and per cent vote for

Congressman Rhodes was .83. In other words, registration alone explained 69 per cent of the variance in voting for Congressman Rhodes. Congressman Rhodes led the ticket for the Republican party in Tempe.

Tempe was located in two legislative districts, Districts 26 and 29 (Table 4-13). The correlation between per cent Republican registration and per cent of the vote for the Republican state senator was .84. Straight party voting was strongest at the level of voting for State Senator and weakest at the level of voting for the office of Governor.

The expected Republican vote for each precinct was developed in Table 4-14 by averaging the per cent of the vote for the Republican candidate for the offices of Governor, U.S. Senate, U.S. House of Representativs, and State Senate. Seventy-one per cent of the variance in the average Republican vote is explained by per cent Republican registration and 52 per cent of the variance is explained by turnout of the vote.

Table 4-6

Per Cent Democratic Registration in Tempe, 1970

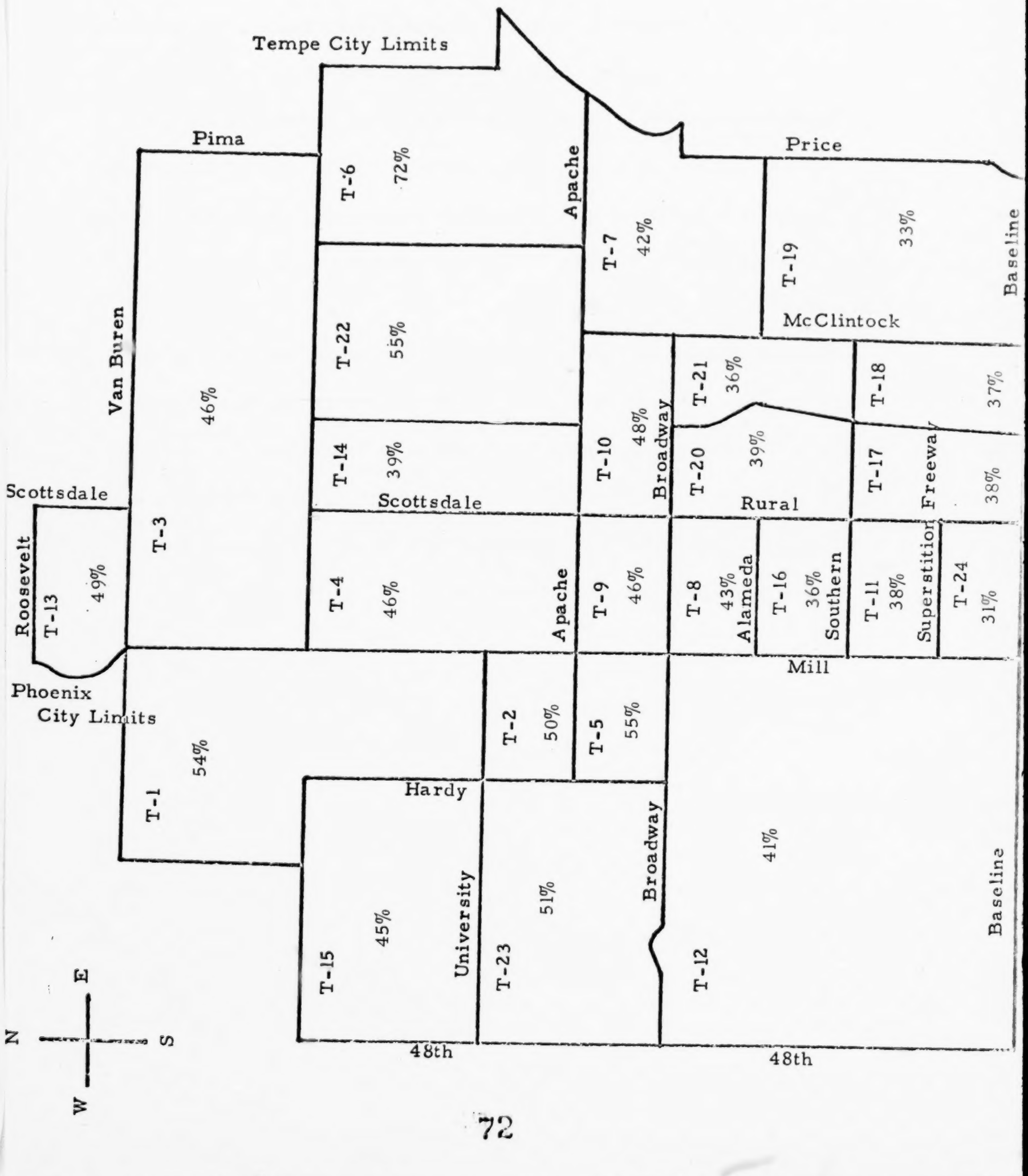


Table 4-7

Per Cent Republican Registration in Tempe, 1970

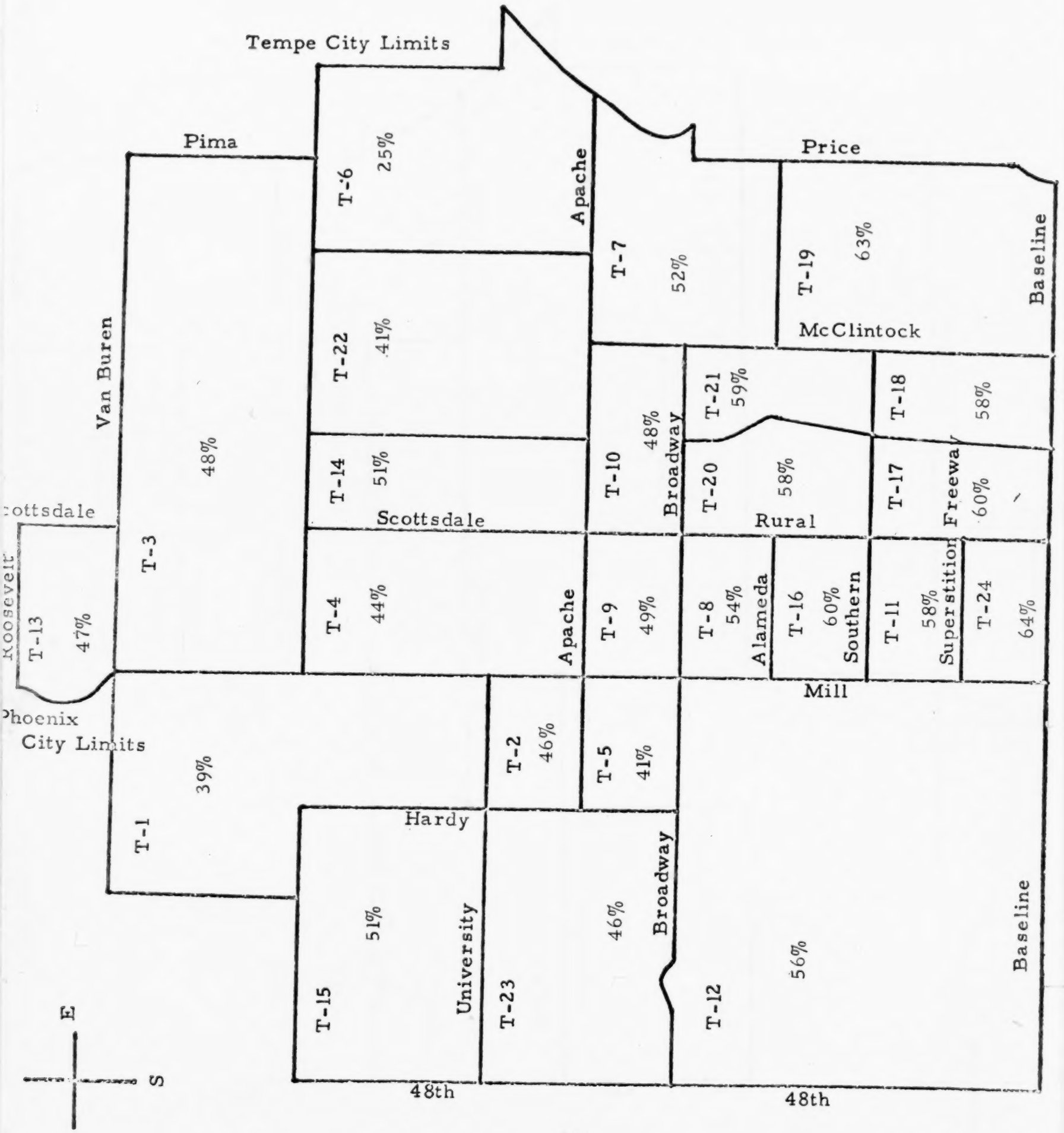


Table 4-8

Total Registered Voters in Tempe, 1970

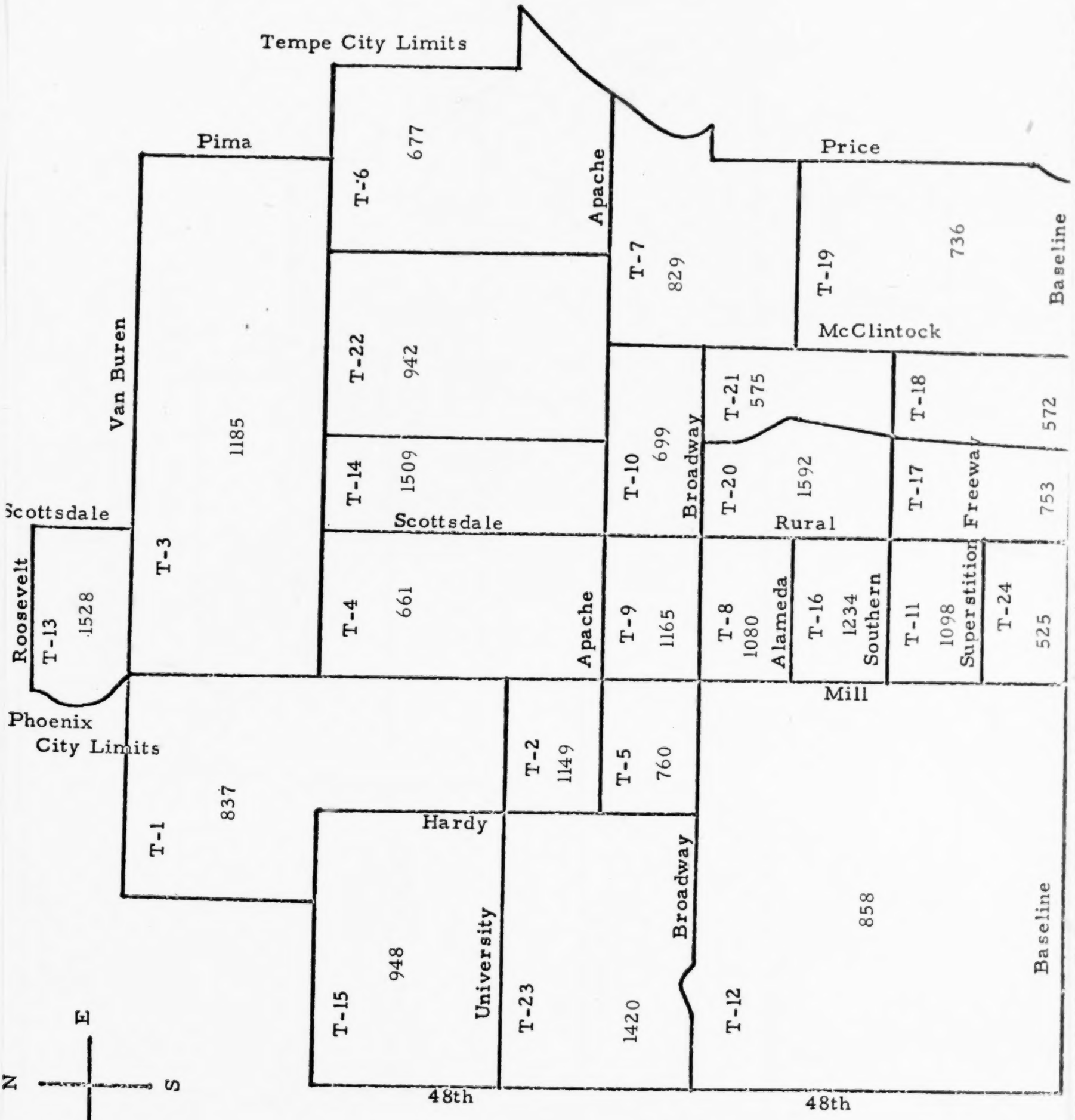


Table 4-9

Per Cent Turnout in Tempe for 1970 Election

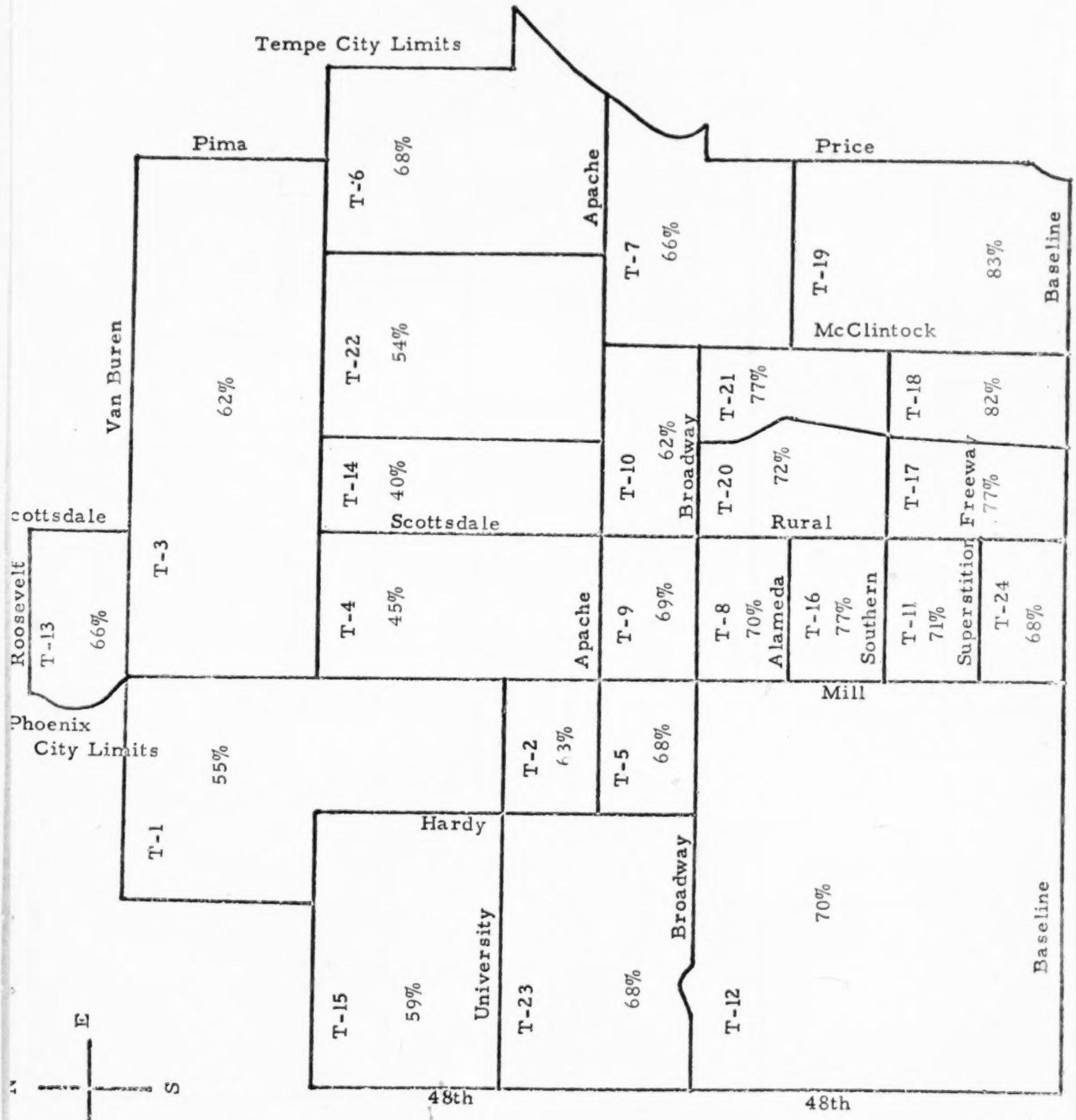


Table 4-10

Per Cent Vote for Governor Williams, 1970

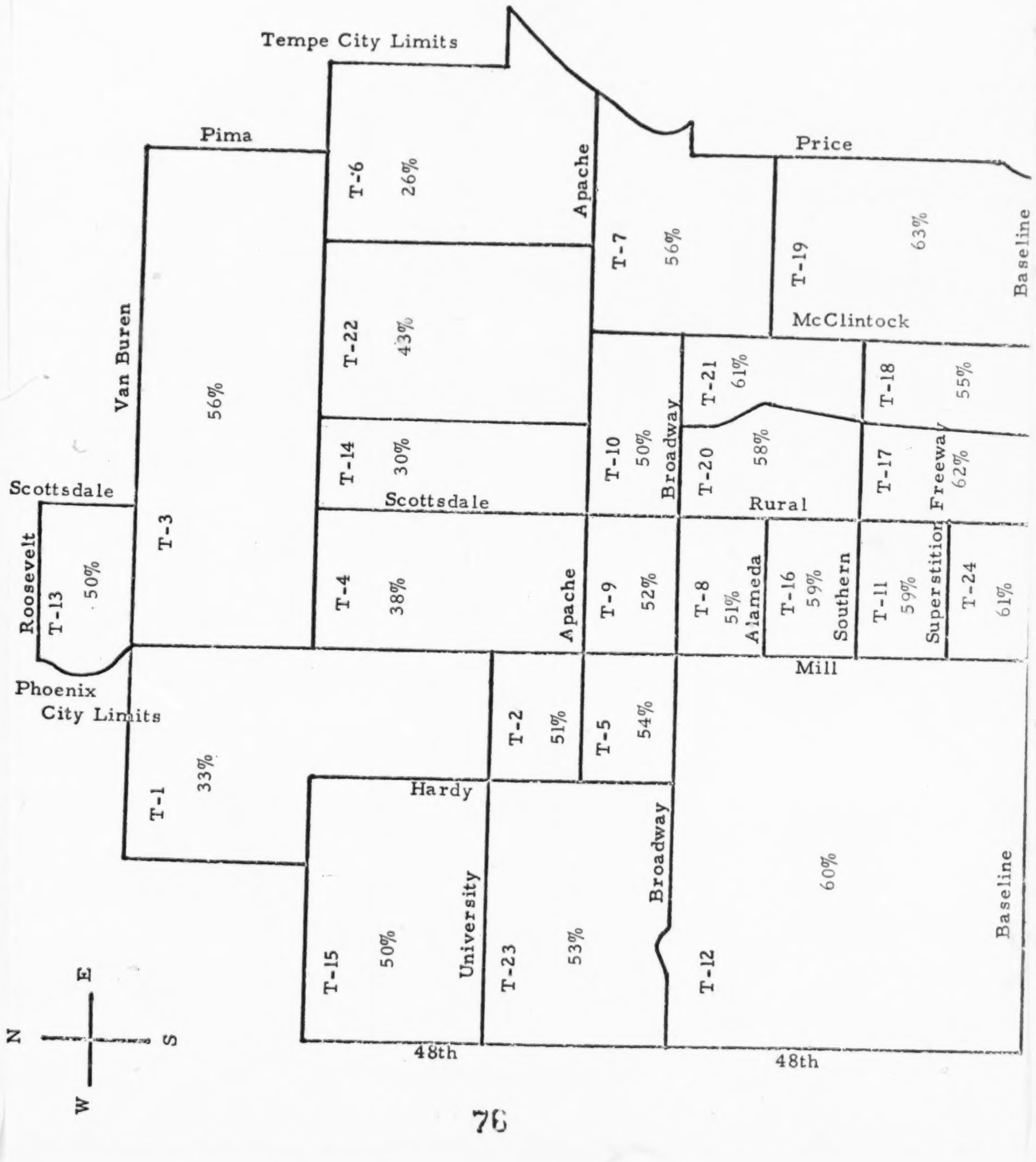


Table 4-11

Per Cent Vote for Senator Fannin, 1970

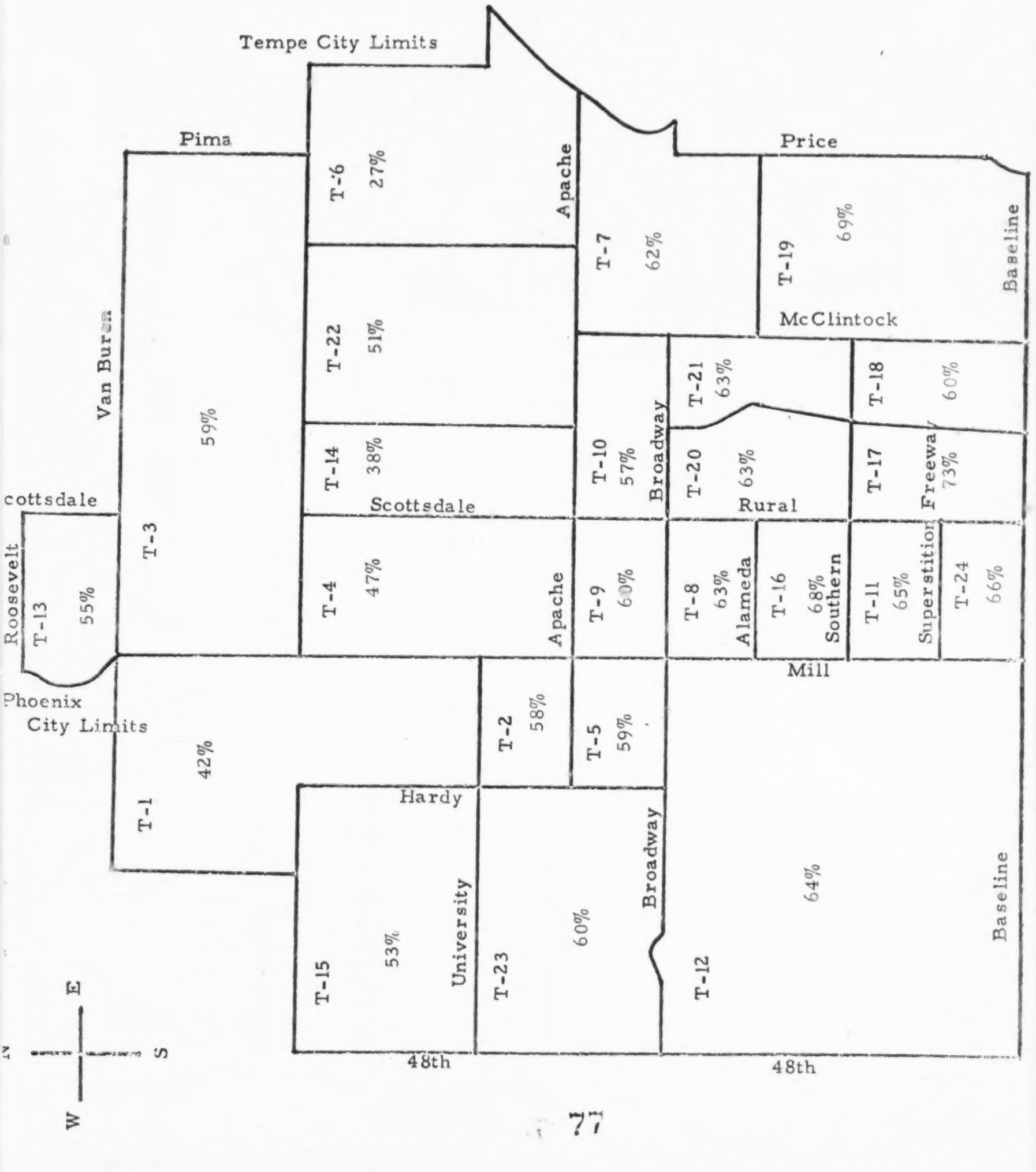


Table 4-12

Per Cent Vote for Congressman Rhodes, 1970

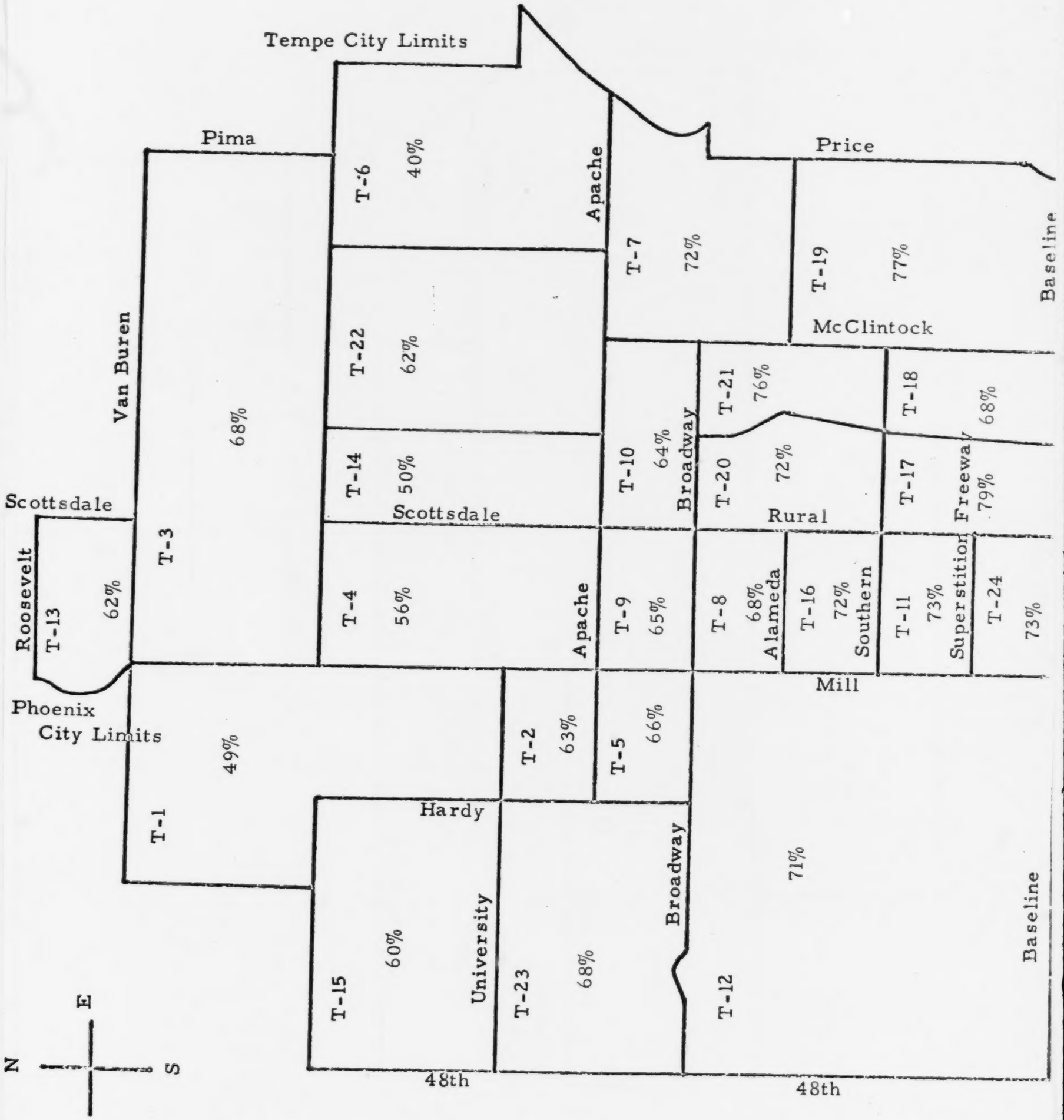


Table 4-13

Per Cent Vote for Republican State Senator, 1970

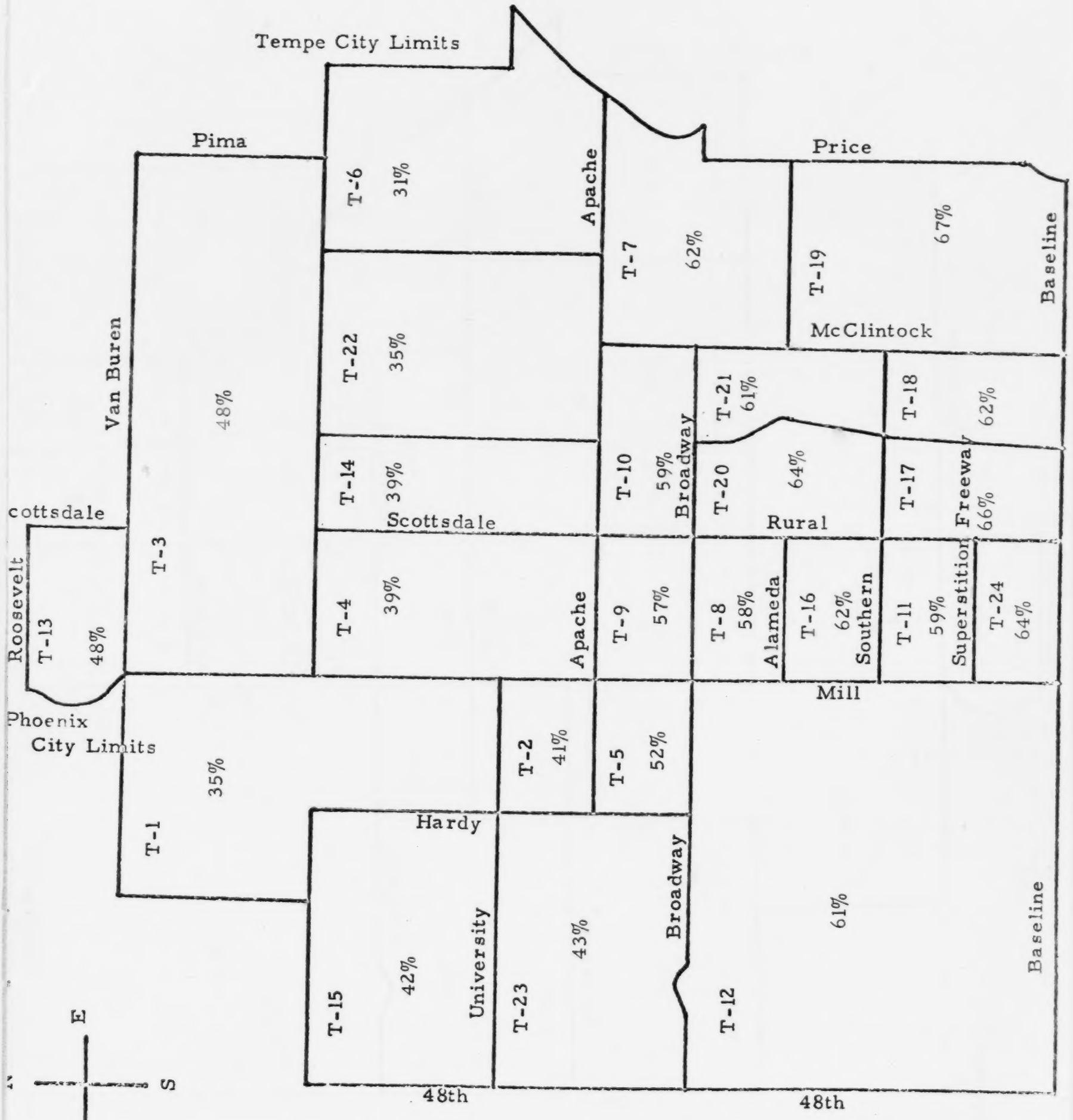
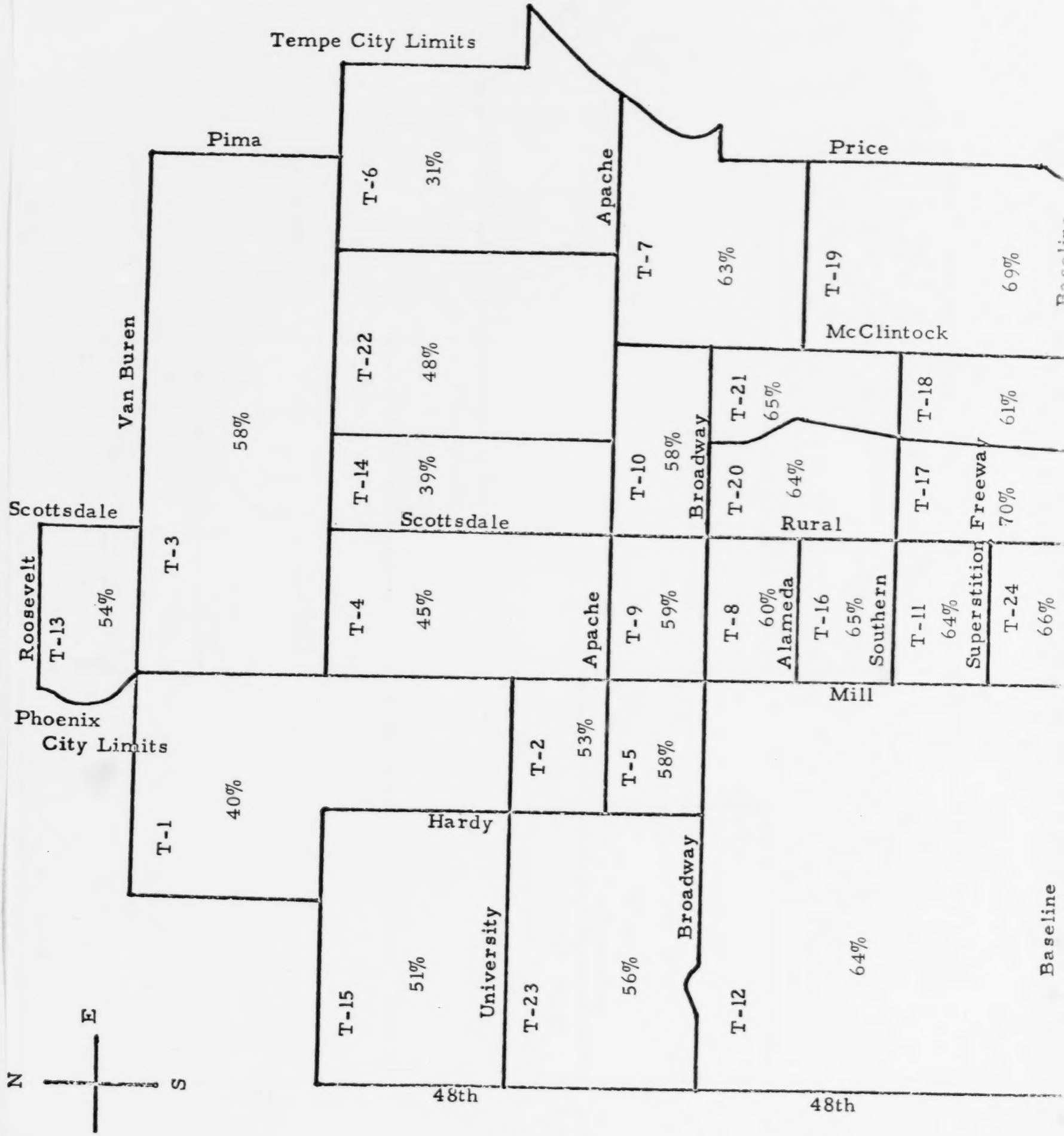


Table 4-14

Average Republican Vote in Tempe, 1970



Summary

The image many writers have had of suburban politics has been that it is the cradle of American democracy. Many social science studies, however, have indicated that apathy and low voter turnout have tended to characterize local politics in the suburb. Tempe was not an exception.

Also, Tempe was found to be relatively Republican and conservative in orientation. Fifty-one per cent of the eligible voters identified with the Republican party while only 37 per cent identified with the Democratic party. The ideological orientation of Tempeans leaned toward the conservative perspective. Personal contact with city officials by residents was very frequent compared to findings in other studies. Seventy-one per cent of the residents indicated they would serve on a community committee focusing on a problem if asked. The Tempe Leadership Conference recruited primarily from the higher status occupations of the community.

Residents supported student involvement in the election process. Most voters indicated that seeing student involvement in a campaign on the part of one of the candidates would not affect the way they would vote. Of those who said student involvement would make a difference, three out of four said they would be more likely to vote for rather than against the candidate with student involvement. The Republican ticket carried Tempe in the 1970 election.

Chapter 5

COMMUNITY PRIORITIES AND RESOURCES

In the 1969 study, the researchers attempted to study aspects of the community through an analysis of issues which are common to nearly every city. Specifically, the study was concerned with discovering: (1) the relative importance of each of the issues as perceived by the residents; (2) the perceived performance of the city for each of the issues; (3) how much volunteer time and energy residents were willing to contribute to each problem; and (4) how much financial support the citizens were willing to pay for each service area.

The 1969 study also focused upon community resources. Nine resource areas were investigated: grocery shopping, minor and major repairs, medical services, restaurants, parks, clothing stores, major purchases, and movies. The study attempted to determine citizen usage, availability, and evaluation of each of these resources.

Issue Orientation

The sixteen community issues investigated can be ranked in terms of their perceived importance to Tempe by the qualified voters of Tempe. In the first column of Table 5-1, we find the ranking of importance by issue. Traffic and schools tie for first place with an index score of 87 out of a possible score of

100.[29] City taxes and police protection tie for second place with a score of 86. Arizona State University-Tempe relations is third (81), and juvenile delinquency is fourth (80). Air pollution, zoning, and race relations tie for fifth place with 79. Garbage is sixth (78). Housing code and street maintenance are seventh (77). Poverty is eighth (75). Recreation (71)and storm drains (70) are ninth and tenth, respectively. Beautification is ranked last in importance with an index of 65.

The first feature to notice with the ranking is that scores are highly concentrated with an index spread of only twenty-two points, from 65 to 87. Citizens view these problems as "issues," with significance for the total community. Second, they are concerned with those things which commonly concern suburbanites, namely: getting to and from work (traffic), education of the children (schools), low taxes, and law and order in the community for family living (police protection). Third, beautification is ranked surprisingly low on the scale. Apparently, citizens feel that basic community functions take priority over "putting frosting on the cake." If the administration wants to continue with an emphasis on beautification, it should conduct a stronger information and education campaign to stress the importance of this task. The beautification program should be linked more with the residents' concern with ecology--that it is part of the pollution and traffic problem--and economics--that it is an investment in their property.

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[29]The index score varies from 0 to 100. See William Goode and Paul Hatt, Methods in Social Research (New York: McGraw-Hill Company, 1952), pp. 258-259.

Table 5-1

Tempe Issue Analysis, 1969

Importance		Performance		Individual Commitment		Financial Commitment	
Traffic	(87)						
Schools	(87)						
Taxes	(86)						
Police	(86)						
ASU - Tempe	(81)						
Juvenile delinq.	(80)						
Air pollution	(79)						
Zoning	(79)						
Race relations	(79)						
Garbage	(78)						
Housing code	(77)						
Streets	(77)						
Poverty	(75)	Garbage	(75)	Juvenile delinq.	(74)		
Recreation	(71)	Schools	(70)	Schools	(71)		
Storm drains	(70)	Police	(65)	Police	(65)		
Beautification	(65)	ASU - Tempe	(62)	Race relations	(63)		
		Race relations	(60)	Air pollution	(62)		
		Recreation	(58)	Taxes	(62)		
		Streets	(54)	ASU - Tempe	(60)	Juvenile delinq.	(60)
		Taxes	(54)	Poverty	(60)	Schools	(60)
		Beautification	(53)	Zoning	(59)	Police	(58)
		Zoning	(52)	Traffic	(58)	Air pollution	(47)
		Traffic	(52)	Housing code	(56)	Storm drains	(47)
		Housing code	(49)	Storm drains	(56)	Traffic	(46)
		Poverty	(47)	Recreation	(56)	Recreation	(43)
		Juvenile delinq.	(46)	Streets	(53)	Streets	(43)
		Air pollution	(41)	Beautification	(52)	Poverty	(42)
		Storm drains	(40)	Garbage	(49)	Race relations	(40)
						Garbage	(36)
						Beautification	(35)

In the second column of Table 5-1, we find the citizens' ranking of the community's performance in these sixteen issue areas. Garbage collection (75), schools (70), and police protection (65) are the top three areas of performance by the city. The three areas of poorest performance are: storm drains (40), air pollution (41), and juvenile delinquency (46).

Several aspects of this column should be noted. First, a high or low ranking of performance does not necessarily mean that the city is doing an excellent or poor job in these issue areas. It means that qualified voters perceive that the city is doing an excellent or poor job. If there are discrepancies between the actual and perceived performance as determined by the decision-makers, then information and education campaigns stressing what is being done with what results or what is not being done because of which limitations are necessary to reduce the discrepancy. Second, the variation on the performance is greater than that for importance. The spread is thirty-five points. Third, performance is always ranked lower than importance for any given issue area.

With the importance and performance index scores, we can develop a satisfaction/dissatisfaction index ranking. By subtracting the performance index score from the importance index score for each issue, we have a measure of relative satisfaction or dissatisfaction. To take an example, garbage collection has an importance score of 78 and a performance score of 75. This leaves a deficit of 3 points. If the community is performing as expected, it would have a discrepancy score of zero. If it has a positive discrepancy score, then the community is performing better than is expected.

Perhaps the community is allocating more resources than is desired to achieve a particular goal. If the discrepancy score is negative, which it is most of the time, then the community is not performing up to the demands or expectations of the citizenry. Air pollution has an importance index of 79 and a performance index of 41. This leaves a dissatisfaction score of 38. This means that the qualified voters are twelve times as dissatisfied with the City's performance on air pollution considering its importance as with garbage collection considering its importance.

Table 5-2 shows the discrepancy scores between the importance and performance dimensions of community activity. The table indicates a significant spread of 35 points. The voters are most dissatisfied with air pollution (38), traffic congestion (35) and juvenile delinquency (34). They are least dissatisfied with garbage collection (3), beautification (12), recreation (13), and schools (17).

This table has interesting implications for Tempe. The citizens are most dissatisfied with the jet age problems--problems which all urban areas have failed to solve and problems over which the community by itself has little control. These jet age problems are air pollution, traffic control, and the morals and behavior of youth. Assistance from the county, state, and federal government should be sought to problems transgressing community borders.

To what extent is there community support to assist the City government in solving some of these problems? Community commitment may be broken down into two areas: individual commitment or what people will do for the

Table 5-2

Issue Priorities, 1969

Importance		- Performance		= Priorities	
1. Traffic	(87)	1. Garbage	(75)	1. Air pollution	(38)
1. Schools	(87)	2. Schools	(70)	2. Traffic	(35)
2. Taxes	(86)	3. Police	(65)	3. Juvenile delinq.	(34)
2. Police	(86)	4. ASU - Tempe	(62)	4. Taxes	(32)
3. ASU - Tempe	(81)	5. Race	(60)	5. Storm drains	(30)
4. Juvenile delinq.	(80)	6. Recreation	(58)	6. Poverty	(28)
5. Air pollution	(79)	7. Streets	(54)	6. Housing code	(28)
5. Zoning	(79)	7. Taxes	(54)	7. Zoning	(27)
5. Race	(79)	8. Beautification	(53)	8. Streets	(23)
6. Garbage	(78)	9. Zoning	(52)	9. Police	(21)
7. Housing	(77)	9. Traffic	(52)	10. ASU - Tempe	(19)
7. Streets	(77)	10. Housing code	(49)	10. Race	(19)
8. Poverty	(75)	11. Poverty	(47)	11. Schools	(17)
9. Recreation	(71)	12. Juvenile delinq.	(46)	12. Recreation	(13)
10. Storm drains	(70)	13. Air pollution	(41)	13. Beautification	(12)
11. Beautification	(65)	14. Storm drains	(40)	14. Garbage	(3)

community, and financial commitment or what people will be willing to pay to have the government do for them.

Table 5-1 indicates that voters are willing to do the most for juvenile delinquency (74), schools (71), protection (65), race relations (63), and air pollution (62). Considering this willingness to participate in the solution of these issues, efforts might be made to study the role volunteers can play in these issue areas. This may be an untapped source of energy which could be constructively put to use. The voters are least likely to do anything about garbage collection (49), beautification (52), street maintenance (53), and recreation (56).

Next, to what extent are voters willing to have their taxes increased to solve these problems? Column four of Table 5-1 shows the financial commitment of the citizens. In comparing the index scores on individual commitment with financial commitment, we find that citizens are less willing to pay for solutions than to volunteer individual effort. The three issue areas which standout in terms of financial commitment are juvenile delinquency (60), schools (60), and police protection (58). The issue areas in which citizens do not want a financial commitment are: beautification (35), garbage collection (36), race relations (40), and poverty (42).

These rankings reaffirm the notion that the city government might pursue either of two directions for beautification: either de-emphasis or education and promotion. The rankings also indicate that increased taxes could be sold best on the basis of better performance on juvenile delinquency, education, and police protection.

Resource Availability

To what extent are the household needs and demands of Tempe satisfied in Tempe? The greater the satisfaction and consumption in Tempe, the greater integration, cohesiveness, and independency of Tempe.

In Table 5-3 nine resources are ranked by the North-Hatt method. They are ranked according to the usage, availability, and evaluation. A one hundred per cent ranking means on the usage dimension that 100% of the sample uses this particular resource in Tempe. One hundred per cent on availability means that all the respondents thought that the location of this particular resource was very good; and 100% on evaluation means that the entire sample rated this Tempe resource as very good.

The first aspect of the table to note is the relative consistency of ranks across the three dimensions. Groceries rank highest on all three while movie theaters rank lowest on all three. The low rankings of movies, clothing stores, and major purchase stores indicate that there is a market for these businesses in Tempe. Attempts might be made to attract these resources to the city.[30]

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[30]Since the time of the 1969 survey, which demonstrated the need for more movie theaters, a twin movie theater has been built in Tempe.

Table 5-3

Tempe Resource Chart, 1969

Usage		Availability		Evaluation	
Grocery shopping	(79)	Grocery shopping	(79)	Grocery shopping	(79)
		Medical services	(66)		
		Restaurants	(65)		
				Minor repairs	(63)
Minor repairs	(62)	Parks	(62)	Medical services	(63)
				Restaurants	(61)
				Parks	(60)
		Minor repairs	(59)		
		Major purchases	(54)		
Medical services	(53)	Major repairs	(53)		
		Clothing stores	(52)		
				Major purchases	(50)
Restaurants	(47)	Movies	(47)		
Major repairs	(46)				
				Clothing stores	(45)
Parks	(42)				
Clothing stores	(37)				
Major purchases	(28)				
				Movies	(27)
Movies	(17)				

Summary

1. Traffic control and schools are issues rated as being of most importance, while storm drainage and beautification are rated as being of least importance.

2. City performance is highest for garbage collection and schools but lowest for storm drains and air pollution.

3. Voters place highest priority on air pollution, traffic control, and juvenile delinquency and lowest priority on garbage collection, beautification, and recreation.

4. Voters would volunteer non-financial commitment to the greatest extent for juvenile delinquency, schools, police protection, race relations, and air pollution. They would volunteer the least for garbage collection, beautification, and street maintenance.

5. Voters will commit themselves financially in the form of increased taxes for better performance to the greatest extent in the areas of juvenile delinquency, schools, and police protection. The voters do not want tax increments for beautification, garbage collection, race relations, and poverty.

6. Groceries rank the highest of the Tempe resources in terms of evaluation, usage, and location; movies rank the lowest on all three dimensions. Clothing stores and major purchase stores also rank low on all three dimensions.

Chapter 6

THE SUBURBANIZATION OF TEMPE

Movement to the Suburb

Preliminary census returns indicate the 1960's to have been a decade of migration from core cities and rural areas to rapidly growing suburbs. For the first time more persons live in the suburbs than in central cities or rural areas. Rural areas and central cities either declined in population or maintained a meager rate of growth. A major exception to the decline of central cities occurred in the so-called sun belt--Florida, the Gulf Coast of Mississippi, Texas, Arizona and California--where core cities continued to grow at an impressive rate.[31]

Why did such a massive migration from rural and urban areas to suburbs take place during the last decade? What is it in the suburbs that is attractive to so many? We hope to shed some light on suburbanization by focusing on types of suburbs, migrational motivations, suburban images, and metropolitan orientations in one Southwestern suburb.

Types of suburbs

Three types of suburbs may be found in metropolitan areas. They are distinguished principally by differences in the proportion of heads of households who work in the suburb.

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[31] Congressional Quarterly, Weekly Report, Vol. XXVIII, No. 31 (Washington, D.C.: Congressional Quarterly, 1970), p. 1957.

An employing suburb is one in which more than half of the heads of households work in the suburb, while relatively few non-residents work there.[32]

A manufacturing suburb imports workers for industry. Most of the people living in this suburb work in local business and industry, which is likely to be one or more large manufacturing plants.

A dormitory suburb is one in which half the local heads of households work outside of the suburb, generally in the central city, though they may work in other parts of the metropolitan area. There are mainly small, local businesses in the dormitory suburb. With 62 per cent of the heads of households working in the city, Tempe may be classified as a dormitory suburb.

Why suburban growth?

With the census results indicating massive movements to suburbia, many scholars are asking what the factors are behind suburban growth. Social scientists have offered a number of explanations. Three explanatory models of urban growth will be discussed here.[33]

The value-orientation approach suggests that suburban growth may be viewed as flight from something terrible in the city or a search for something wonderful in the suburbs. The flight factors are often submerged, however,

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[32]Robert Havighurst, Education in Metropolitan Areas (Boston: Allyn and Bacon, 1969), pp. 68-69.

[33]Dobriner, op. cit., pp. 61-80.

in studies of urban migration because respondents in interview situations are more likely to indicate they moved for positive reasons rather than negative ones, that they moved because it was "better for the children," rather than admit, "We wanted to get away from the minorities."[34]

The better-for-the-children theme is perhaps most popular of all the positive attractions of suburban life. Gardening, patio cookouts, swimming, and the like strengthen family solidarity and cohesion. Thus, the search for suburbia focuses on the good life for the family according to the first explanation.

Second, the social movements approach depicts suburban growth as a deep and pervasive modern social pathology. The desire to live in the suburbs is viewed as a deep seated quest for community, an escape from industrialism, or a search for grass roots living. Dobriner, summarizing this perspective, states:

> The flight to the suburbs, accordingly, is seen as modern man's flight to find himself again, and to re-establish a form of community in which he can enjoy technological progress but also social stability, community, and identity. For many...the rise of suburbia and the nostalgic image of the small and good community, of sunlight and space, of stable and integrated families, of good neighbors and honest politicians, is a quest for community and a return to grass roots living.[35]

Third, the economic and technological approach explains suburban growth in terms of electric motors, automobiles, and expressways. Suburbs grow in part because city land is expensive and suburban land is cheaper.

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[34]Ibid., p. 64.

[35]Ibid., p. 72.

Consequently, pent-up city populations flow into the economic and geographic areas of least resistance.[36]

Leo Schnore argues that as city land increasingly goes over to economic uses the urban population must find residential sites elsewhere. The people need housing, and builders answer the need by constructing large-scale tracts on relatively cheap land in suburban areas. Increasingly concentrated suburban populations create non-basic economic opportunities. Such non-basic industries as retailing, service, and light manufacturing industries follow their markets into the suburbs.[37] The preceding explanations for suburbanization are not mutually exclusive. Rather, they probably complement each other in understanding growth in many metropolitan areas.

Why people move to the suburb of Tempe

With 62 per cent of the population having lived in the city less than six years, Tempe is annually confronted with integrating newcomers into the affairs of the community. City planners and community agency officials should be cognizant of the factors which bring people first to the Phoenix area and then to Tempe rather than to other locations in the "Valley."

The Inside Phoenix: 1970 study asked respondents why they moved to the Phoenix area.[38]

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[36] Ibid., p. 62.

[37] Leo Schnore, "The Growth of Metropolitan Suburbs," American Sociological Review, Vol. 22 (April, 1957), pp. 165-173.

[38] Inside Phoenix: 1970 (Phoenix: Arizona Republic and Gazette, 1969), p. 11.

One-third of the respondents came to Metro Phoenix for employment and one-fifth for health. The people who came for health, climate and retirement probably came because they particularly liked the environment. These people constituted almost half of the entire sample (44%).

Given the fact that newcomers are going to live in Metro Phoenix, why do they select Tempe as their place of residence? The 1969 study asked why the respondents moved to Tempe. Educational opportunities account for 30 per cent of the responses; housing advantages for 29 per cent; friendly people, 16 per cent; and climate, 4 per cent. Arizona State University, located in Tempe, and a respected public school system appear to attract many newcomers to the City. At the same time, the rapid construction of tract homes makes Tempe a convenient location for the Phoenix commuter.

With 53 per cent of the residents favoring the present rate of growth as opposed to 39 per cent not favoring such rapid growth, the majority of eligible voters in 1970 are willing to continue present growth plans for the city. Tempe has grown 152 per cent in the last ten years, and the citizens in 1970 are prepared to accept this rate of growth increase for the indefinite future.

Which explanation for suburban growth fits Tempe best--the value-orientation, social movements, or economic and technological approach? Collection of the Tempe data in 1969 and 1970 was not really designed to answer this question. And as was pointed out before, social approval needs on the part of respondents often makes a survey research test of these hypotheses difficult, if not hazardous. Nevertheless, the data suggest that the flight to the suburbs and specifically to Tempe is based partly on the vision of golden opportunities--

economic and familial. Our Tempe data suggests that grass-roots living is supported by the desire to participate in local affairs. We have no data, however, to determine the extent of escape from negative aspects of city life. Each explanation of suburban growth, therefore, appears to be relevant to the situation in Tempe.

Images of Suburbia

Suburban folklore

Commentators have spilled a great deal of ink describing the suburbs of America. Capturing the meaning of suburban life is no easy task. Dobriner summarizes the most prevalent themes: "suburbs are

1. warrens of young executives on the way up;
2. uniformly middle class;
3. 'homogeneous';
4. hotbeds of participation
5. child-centered and female dominated;
6. transient;
7. wellsprings of the outgoing life;
8. arenas of adjustment;
9. Beulah Lands of returns to religion;
10. political Jordans from which Democrats emerge Republicans."[39]

The commentators conceptualize suburbia as classless, compulsive, frantic, and outgoing. The essence of suburbia is captured in its appearance: "My God!--all the houses are identical!"[40] These are the qualities imputed by the commentator to the suburbs, often with little evidence to support his contentions.

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[39]Dobriner, op. cit., p. 6.

[40]Ibid.

The social scientist's image of the suburban community, on the other hand, is formed primarily by inductive interpretations of empirical materials. The social scientist would ask whether these observations reflect the actual perceptions and attitudes of the members of the community. In this study, community image was examined through asking what people liked and disliked about their community, why they moved to the community, what they hoped their community to become, how they rated their community on a set of adjective scales, and how they perceived their community to have evolved through the years.

What people like most about Tempe

What sorts of things do qualified voters like best about living in Tempe? Table 6-1 presents the response distribution to this question.

Table 6-1

What Do You Like Most About Tempe?
(1969)

Educational opportunities	21%
Climate	11
Interpersonal relations/friendly people	14
Location: housing, size, convenience	34
Culture	3
Resource availability	3
Others	5
Refusal/Na	9
	100%
	(462)

A third (34%) of the respondents identified the location of Tempe--its housing facilities, size, and convenience--as the factor most liked about the community.

A typical response was made by a computer systems analyst who was a male, between 31 to 40 years of age, and an Arizona resident for two years: "I like this particular location because it is convenient to everything--schools, shopping areas, etc." A single garage mechanic who has lived in Tempe less than a year said, "I like it because it's not the big city--close to it but not in it."

Most residents displayed a very favorable attitude toward the community in which they lived. When asked, "How well do you like Tempe as a community in which to live?" 66 per cent indicated they liked it very much; 22 per cent somewhat; 5 per cent indifferent; 4 per cent disliked it somewhat; and 3 per cent disliked it very much. In other words, 88 per cent were favorably inclined toward their community.

When respondents were probed about what they liked or disliked most about their community, they gave different types of responses. When answering what they liked about Tempe, they tended to provide very general statements ("It's a great place"); when answering what they disliked most about Tempe, however, they tended to be very specific ("There is not a stoplight at College and Southern").

What people dislike most about Tempe

In the 1969 study, we asked residents what they disliked most about Tempe. We found five major kinds of disappointment: (1) lack of shopping centers, movies, restaurants, hospitals, parks, etc.; (2) air pollution; (3) downtown ugliness: (4) condition of streets; and (5) the "hippies." Other complaints were tabulated and may be found in Table 6-2.

Table 6-2

What People Dislike Most About Tempe
(1969)

1.	Resource unavailability (lack of shopping centers, movies, restaurants, hospitals, etc.)	15%
2.	Air pollution:	
	Smells	7
	Noise	2
	Smog	1
3.	Downtown ugliness (lack of beautification)	9
4.	Condition of streets	8
5.	The people (hippies)	8
6.	Parking, business community attitudes, taste of water, housing	8
7.	Politics, attitudes of Tempe residents (too conservative) and city administration	5
8.	Traffic	5
9.	Too big and impersonal	4
10.	Climate (too hot)	4
11.	Police Department	3
12.	Planning and zoning	3
13.	Lack of public recreation facilities	3
14.	High rent, cost of living	3
15.	Elementary and secondary schools	2
16.	City taxes	2
17.	Storm drains	1
18.	Garbage collection	1
19.	Arizona State University-Tempe relations	1
20.	Location	1
21.	Utility rates	1
22.	Students	1
23.	Lack of public transportation	1
24.	Tempe Daily News	1
		100%
		(462)

In the 1970 study we asked a similar question, "What do you think is the most serious problem facing the City of Tempe?" At this time residents thought the major problems were: (1) rapid growth; (2) beautification; (3) schools; and (4) zoning and planning. The percentage distribution is shown in Table 6-3.

Table 6-3

Most Serious Problem Facing Tempe
(1970)

Growth	20%
Beautification	9
Schools	8
Zoning and planning	7
ASU-city relations	5
Police protection	5
Drugs	4
Politics and culture	4
Traffic	4
Housing	3
Air pollution	2
Street maintenance	2
Taxes	1
Juvenile delinquency	1
Parks and recreation	1
Shopping centers	1
Hippies	1
Other	7
Dk/Na	15
	100%

The two most striking features of this table are concern over the environment and law and order. Growth, beautification, zoning and planning, traffic, and air pollution are directly related to the ecology of the system. These items account for 42 per cent of all respondents and almost half of those who name any problem whatsoever. The law-and-order relevant categories are police protection, drugs, and juvenile delinquency. These are 10 per cent of all responses. In the 1969 study these categories accounted for 3 per cent of the total responses. A suitable and safe environment, then, seems to be the concern of most members of this suburb.

What should be done?

The researchers found in Table 6-3 that the most serious problems facing Tempe were: (1) growth; (2) beautification; (3) schools; (4) zoning and planning; and (5) ASU-Tempe relations. What did the respondents propose to do about these problems?

More respondents identified growth as a serious problem for Tempe than any other. One out of every three respondents who mentioned "growth" felt that better planning--specifically a master plan--should be adopted. More services, encouraging more industry, controlling ASU enrollments, and more money were also suggested as solutions to the growth problem.

One out of every ten respondents named beautification as Tempe's most serious problem. Most persons asked for cleaning up the downtown and urban renewal.

As for schools, 43 per cent indicated that they felt more new schools were needed. One respondent despaired of the frustrations of living in a high growth community: "By the time a new school bond issue is passed and schools are built, we'll still be short of schools." Ten per cent advocated more long-range planning; 12 per cent, more funds. Sixteen per cent did not know what should be done. The remaining were not classifiable in a meaningful category.

Zoning and planning was named by 7 per cent of the respondents as Tempe's most serious problem. The recommendations primarily involved a plea for "better planning," better enforcement of zoning regulations, and adherence to a master plan.

Finally, 5 per cent of the respondents cited ASU-Tempe relations as the most serious problem. What should be done? Literally, no two people agreed. The answers could roughly be separated into four categories. First, 12 per cent advocated restricting the size of the university. Second, 24 per cent wanted a hard line policy. These people advocated expelling dissident students, closing the university down and starting all over again, giving more authority to the regents, and screening all teachers. Third, an equal number, 24 per cent, preferred a more sympathetic attitude toward the students. These persons wanted more dialogue between students and regents as well as a greater role for students in the making of decisions. And finally, the remainder contained those who did not know what to do about the problem.

A Tempe image index

The perceptions of Tempe noted previously were elicited by means of presenting respondents with open ended questions and probing for detailed answers. Another method of studying community image involves presenting respondents with a statement and asking for a rating of agreement or disagreement with the item. The respondent is given the opportunity to strongly agree, agree, disagree, or strongly disagree with the statement.

The North-Hatt technique of weighing the resulting percentage distribution of responses produces an index varying from 0 to 100. An index score of 0 indicates that everyone "strongly disagreed" with the statement, and a score of 100 means that everyone "strongly agreed" with it. A score of 50 indicates

that just as many people disagreed as agreed with the item.[41]

Respondents evaluated eighteen statements. Index scores were calculated for each of the statements, and the results are presented in Table 6-4.

Table 6-4

Tempe Community Image Index, 1969

Tempe is (has):	
Good schools	73
Good place to raise children	71
Friendly people	70
Clean city	66
Busy city	65
Fair police	65
Just courts	64
Safe city	64
Religious city	64
Honest government	63
Cultural city	63
Active city	62
Progressive city	61
Efficient government	60
Exciting city	60
Modern city	58
Beautiful city	56
Wealthy city	42

The table clearly indicates that Tempe is pictured as a family community--one which has good schools, one in which children can be raised, one which contains friendly people, and one which is clean. Tempe is the opposite of the Eastern urban cities--active, exciting, unsafe, modern, etc. This is why

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[41]William J. Goode and Paul Hatt, Methods in Social Research (New York: McGraw-Hill, 1952), pp. 258-259; John P. Robinson, Robert Athanasion, and Kendra Head, Measures of Occupational Attitudes and Occupational Characteristics (Ann Arbor: Survey Research Center, Institute for Social Research, 1969), p. 337. The "strongly agree" category is weighted by 3; "agree," by 2; "disagree," by 1; and "strongly disagree," by 0. The percentage in each category is multiplied by the corresponding weight. The products are added, and the sum is divided by 3.

people like Tempe. This is the type of image people want for Tempe and one with which they can identify. One interesting factor appears throughout the 1969 data: Tempe is perceived as being not particularly attractive, and people think that beautification compared to the other fifteen issues (see Table 5-1) is relatively unimportant to Tempe. Beyond this, the citizens are neither willing to do something about beautification nor to pay higher taxes for beautification efforts. These data have implications for present emphasis on beautification. Perhaps the city may want to undertake a new approach to educating the public about the merits of beautification vis-a-vis the costs.

What is positive community image associated with?

A positive community image was most highly related to reading the Tempe Daily News at least once a week. While only 6 per cent of those who read the Tempe Daily News have low community image, 16 per cent or more than twice as many among non-readers have low community image. Among the readers 44 per cent have high community image, whereas only 24 per cent of the non-readers have high community image. At this point in the analysis we can not be sure whether reading the Tempe Daily News "causes" a more positive community image or whether people who have high community image are more likely to read Tempe Daily News with some regularity. Probably both of these factors interact so as to produce a strong relationship.

The second factor most highly related to a positive community image is neighborhood support.[42] People scoring high on neighborhood support and trust were found to be those who also had the most positive image of Tempe as a community.

Marital status was found to have an effect upon community image. People who are married or who have been married have higher community image than people who have never been married. Fifty-eight per cent of the widowed had high community image, while only 37 per cent of the married, 33 per cent of the divorced and separated, and 13 per cent of those never married had high community image. The data, therefore, indicates that the married are three times as likely to have a high positive image as those never married, and the widowed are five times as likely to have a positive image as those never married. These findings suggest that attempts might be made to find a mechanism to encourage the development of greater community spirit among those not yet married.

Age was a third factor associated with positive community image. Generally speaking, older people tended to have a greater regard for the

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[42] The items used to construct this scale were:

1. I know I can't rely on help from my neighbors if I need it. *
2. People are not as good neighbors as they used to be. *
3. My family is the only group I can feel a part of. *
4. If a real neighborhood problem arises, my neighbors and I will get together to solve it.
5. It's up to the people in the neighborhood to get together if they want a nice neighborhood. *
6. Good neighbors help make my life enjoyable.
7. Most of my neighbors are unfriendly to their neighbors. *

*Item reversal.

community than younger people. While 23 per cent of those 21 to 30 years of age had high community image, more than twice as many (55%) of those 61 or older had a high community image.

Political orientation also seemed to affect Tempe image. The more conservative the political orientation, the greater was the positive community image. While 31 per cent of the conservatives and middle-of-the-roaders had high community image, only about half as many (18-20%) of the liberals and New Left had a high community image. In terms of party registration, there is no significant difference between Republicans and Democrats regarding community image.

Occupation had an effect upon community image. Unskilled workers, machine operators, and the retired had the highest community image. Those with the lowest rates of community image were students and people on relief.

Working outside of Tempe had some effect upon community image under certain conditions. Working in Mesa or Phoenix did not seem to have a negative effect. Working in Scottsdale did, however. While 34 per cent of those who worked in Tempe had high community image, half as many (17%) of those who lived in Tempe but worked in Scottsdale had high community image. It appears that citizens compared the community they lived in with the community in which they worked. Many of the people that said positive things about Tempe compared Tempe to Phoenix, where many Tempeans work. People working in Scottsdale apparently saw some advantages which are lacking in Tempe.

Income was slightly related to image. The higher the income, the greater was the positive image.

Political participation was moderately related to positive image. Table 6-5 demonstrates that while 27 per cent of the low participators (apathetics) had high community image, 33 per cent of the moderate participators (spectators) and 40 per cent of the high participators (gladiators) had high positive image of Tempe. This relationship poses a problem similar to the one involving reading the Tempe Daily News and image: did high community image cause high political participation or did high political participation cause high positive community image?

Table 6-5

Community Image by Political Participation, 1969

	Political Participation		
Community Image	Low	Medium	High
Low	24%	11%	9%
Medium	49	56	51
High	27	33	40
	100%	100%	100%

The literature in political science seems to side more with the latter than the former. Through political participation and political involvement people gain a greater sense of identity with the community. They tend to have greater appreciation for the problems of the community and the limits of community government in solving many community problems. The recommendation which seems to emanate from these data is that the community should place a priority upon finding ways to involve people in community affairs.

A twenty year dream

In the 1970 study, the researchers were interested in determining what

perceptions the residents had of the quality of living in Tempe in the past and

the future. Would the respondents think of Tempe's "golden age" as being in the past, present or future?

We asked, "Do you think Tempe will be a better or worse place in which to live in another 20 years?" Sixty-one per cent indicated "better," 29 per cent replied "worse," and 10 per cent did not know.

When asked, "Do you think Tempe is a better or worse place in which to live today as compared to what you think it might have been 20 years ago?" 69 per cent said "better," 19 per cent replied "worse," and 12 did not know. Obviously, only a small fraction of the respondents would have been living in Tempe 20 years ago, and most people would not have actually known what life was like in Tempe at that time, but the researchers were interested in the general impression of what the respondents thought the quality of life might have been like at that time.

Cross-classification of the two items provided us with four types of respondents (Table 6-6). The first type involved the "grass is greener" kind who thought that things in Tempe were better 20 years ago and would be better 20 years from now. Sixty-four per cent of the sample were of this type. The second kind of respondent was the nostalgic pessimist who thought things were better 20 years ago but would be worse 20 years from now. Eighteen per cent of the sample were nostalgic pessimists. "Optimists," those who thought things were worse 20 years ago but would be better 20 years from now, accounted for 6 per cent of the sample. Finally, the "best of all worlds" kind, who thought things were worse 20 years ago and would be worse 20 years from now, characterized 12 per cent of the sample.

Table 6-6

Past and Future Orientations, 1970

20 Years Ago	20 Years from Now: Better	20 Years from Now: Worse
Better	Grass is greener 64%	Nostalgic pessimist 18%
Worse	Optimist 6%	Best of all worlds 12%

What did Tempeans want their community to be like in another 20 years? If city planners had some baseline information on community values and goals, they might be able to more adequately take these factors into account. The researchers asked the following question: "Many people have a dream about what they would like to see their city become. What would you like to see Tempe become in another 20 years?" The results are shown in Table 6-7.

Table 6-7

Perceptions of What Tempeans Would Like To See Their Community Become, 1970

Cleaner/prettier/pollution free	9%
University city	8
Small city	9
Big city	3
Modern city	2
Cultural city	5
Residential city	3
Should stay the same	11
Safe/quiet/peaceful	6
More industry/economic development	5
Less industry	3
More parks and recreation	4
More planning and zoning	3
More shopping centers	1

More decency/fewer drugs	1
More community participation	1
More transportation	2
Less crime/more laws	1
Other	14
Dk/Na	9
	100%
	(731)

The responses indicate some diversity but also some agreement in terms of long run visions of community development. As for differences, some want more industrial development while others want less. Some desire Tempe to be a small city; others, a large city. Some prefer a rustic and western city; others, a modern, technologically oriented community. These variations in values are offset by consensus on other goals. Most Tempeans want the city to become a small, pretty, safe, stable, university city. This finding prevails in both the 1969 and 1970 studies using closed and open-ended methods of asking questions.

Here are some of the ways Tempeans express their dream for Tempe:

> "A clean place with a public city library and a recreation program."
>
> "Keep a middle-class income city with the university and small industry."
>
> "I'd like to see it back up and become about one-half this size. It should be a community with more emphasis on families and young people. There really isn't a good movie or skating rink, etc. for young people."
>
> "Too many townhouses too close. Spread them out.

Metropolitan and State Orientations

James Madison effectively argues that the source of political conflict is diversity among men.[43] Madison's insight into diversity as a source of conflict

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[43]James Madison, The Federalist, No. 10.

assists us in understanding metropolitan politics. The metropolitan area consists of a large number of different kinds of persons living closely together. The problem of regulating conflict assumes tremendous proportions. It is very difficult to arrive at metropolitan consensus about problems involving mass transit, highway construction, sharing of welfare costs, tax burdens, water supply and sewage disposal, planning and zoning, housing policy, and many other problems.

How much resistance is there in Tempe toward working for metropolitan solutions? We asked the following question: "There are approximately 17 cities in the Phoenix area, and many of these cities face the same problems. Do you think the cities should join together to solve the problems or try to work the problems out individually?" Sixty-one per cent indicated the cities should join together to solve the problems; 26 per cent declared that the cities should work the problems out individually; 9 per cent said it depends on the particular issue; and 4 per cent did not know or did not answer. Democrats (63%) were slightly more supportive of metropolitan solution than Republicans (58%). Liberals (70%) were more in favor of the cities joining together to solve the problems than conservatives (61%). Most residents, then, tended to support metropolitan cooperation, and political factors were only slightly associated with opinion on the topic.

Tempeans have strong opinions concerning State issues. We asked each respondent what he or she thought was the most serious problem facing the State of Arizona. Respondents indicated that pollution, water shortage, drugs, education, and rapid growth were the most serious State problems.

Twenty-five per cent of Tempe's population identified pollution as the State's most serious problem. Air pollution was cited ten times as frequently as water pollution as an issue. The researchers asked those who indicated pollution as the most serious problem what they would like to see done about it. Practically all of the solutions offered involved constructive action toward pollution reduction. Four major approaches appeared. First, one out of every four indicated that further pollution regulation over the mines, power companies, and industry was necessary. Second, one out of every five indicated further action on the automobile was desirable to curb pollution. Third, one out of eight identifying pollution as Arizona's most serious problem simply selected "stricter legislation" as the solution. Finally, about 5 per cent opted for a mass transit system as the solution to the State's pollution problem.

The water problem/CAP was cited as the most serious problem by 15 per cent of Tempe's population. Twenty-five per cent of those selecting this problem did not identify a solution. About half considered CAP as the solution to Arizona's water problem.

The drug problem concerned 10 per cent of the Tempeans enough for them to cite it as Arizona's most serious problem. When asked what ought to be done to eliminate the drug problem, two approaches emerged. First, there were those that favored more drug education, more groups like CODAC, and more understanding between parents and children. Second, there were those who wanted stiffer laws and enforcement, greater parental control over children, and greater control of drug pushers and traffic. The "hard line" approach was twice as popular as the educational approach among those mentioning drugs as Arizona's gravest problem.

Rapid growth concerned 7 per cent of the Tempeans. One out of five answering could not identify a solution to the rapid growth problem. Better planning was most frequently mentioned as a solution. Better transportation was second in frequency. The remaining solutions were varied and lacked significant support from other residents of the City.

With more Americans living in the suburbs than in the central cities today, the process of suburbanization should be studied with great care by scholars and city planners alike. Tempe, one of America's fastest growing small cities, has reluctantly become a suburb. Its residents are confronted and concerned with the problems that millions of other Americans face--drugs, growth, education, traffic, and so forth. Perhaps no one will ever know what "middle-America" is, but Tempe in outlook and behavior might be it.

Summary

Three basic types of suburbs were identified: employing, manufacturing, and dormitory. Tempe was characterized more by the dormitory suburb concept than by the other two. While employment brought more people to the Phoenix area than any other factor, educational and housing opportunities motivated three-fifths of the residents of Tempe to move to Tempe.

Tempe residents liked the location of Tempe along with the availability of housing. In the 1969 study, five kinds of "dislikes" were found: (1) lack of shopping centers, movies, restaurants, hospitals, parks, etc.; (2) air pollution; (3) downtown ugliness; (4) the condition of streets; and (5) "hippies." In the 1970 study, residents thought the major problems facing Tempe were: (1) rapid growth; (2) beautification; (3) schools; and (4) zoning and planning.

The major components of the voters' image of Tempe were that Tempe had good schools, that it was a good place to raise children, and that it was a friendly city. A positive community image was related to the amount of reading of the community newspaper, the amount of support for the neighborhood, the status of being married, older, conservative, and politically active.

Tempeans had a dream for their city. They wanted Tempe to be a small, safe, stable, university city. The major recommendations they made for solving Tempe's problems were: (1) better planning; (2) cleaning up the downtown area; (3) more schools; and (4) better enforcement of zoning regulations.

Most residents favored a metropolitan approach toward solving many of the problems facing the cities in the Valley. Tempeans identified the major problems facing the State of Arizona as being: (1) air and water pollution; (2) water shortage; (3) drugs; (4) education; and (5) rapid growth.

Chapter 7

COMMUNITY DECISION-MAKING AND SURVEY RESEARCH

As suburban communities rapidly increase in size and complexity, the problems of the central city spill over into suburbia. Now, suburbs too share the problems of traffic congestion, air pollution, juvenile delinquency, and alienation with the central cities. As the small city expands, the decision-makers grow further removed from first-hand contact with the scenes of action in the community. The city decision-makers increasingly depend on unproven information for their picture of what is happening in their community. On the basis of this highly fragmented and typically tenuous information, they must make decisions that have profound consequences.

The decision-makers' information base is highly selective. They develop a picture of reality from what they see and hear. Yet this may be only part of the picture. Often decision-makers do not detect signals from such varied segments of the community as unsettled newcomers, aging residents, minority members, very busy working people and commuters. At other times, decision-makers hear such loud signals from small special interest groups that the majority opinion is drowned out.

City decision-makers, therefore, require reliable information sources. They need to see the whole picture with the elements in their perspective, and they need to listen to voices that are seldom spoken.

Community decision-making analysis reflects a focal point for social scientists. Psychologists ask: How does man use his mind to solve community problems? Economists ask: How does he choose among alternatives so as to get the most of what he wants? Philosophers ask: How does he decide on what is valuable? Students of public administration ask: How do men make an organization serve their purposes? Political scientists believe that all these questions, and some others as well, ought to be asked about political decisions.

Despite the number of disciplines relevant to policy making, very little literature is available for managers and councilmen to help them make "better" decisions. The field has not gone beyond the rational or classical model. This formulation is as follows:

1. Faced with a given problem,
2. a rational decision-maker first clarifies his goals, values, or objectives, and then ranks or otherwise organizes them in his mind;
3. he then lists all important ways of--policies for--achieving his goals
4. and then investigates all the important consequences that would follow from each of the alternative policies,
5. at which point he is in a position to compare consequences of each policy with goals

6. and so choose the policy with consequences most closely matching his goals.[44]

Little experience in urban government is needed to recognize that the classical model simply does not describe how decisions are in fact made. Policy making is what it is because participants in the policy-making process behave as they do. Men make policy; it is not made for them. They also make the policy-making machinery. Much of what might be called the irrationality of the policy-making system is, therefore, the consequence of the irrationality of the participants in it. The results may be serious--even disastrous; but this condition represents the quality of man's control over policy making, not the absence of it.

Definition of Problems

City managers and councilmen are often not faced with a given problem as in the classical model. Instead they have to identify and formulate their problem.

1. Rioting breaks out in a city. What is the problem?
   a. Maintaining law and order?
   b. Racial discrimination?
   c. Impatience of the minority groups with the pace of reform now that reform has gone far enough to give them hope?
   d. Incipient revolution?

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[44]Robert Dahl, Modern Political Analysis (Englewood Cliffs: Prentice-Hall, Inc., 1963), pp. 93-110.

e. Lawlessness at the fringe of an otherwise relatively peaceful reform movement?

f. Urban disorganization?

g. Alienation?

2. The community needs to bring in industry for more revenue. What is the problem?

a. The kind of industry that will be acceptable to the residents?

b. The location of the industry?

c. The conditions of zoning?

3. The council decides that it is time to float a bond issue. What is the problem?

a. The level of financial commitment acceptable to the voters?

b. The best time to float the issue?

c. The items to receive priority?

d. The items most and least likely to be accepted by the citizens?

4. The parks and recreation department must decide what kinds of activities are to be offered. What is the problem?

a. The location?

b. The clientele?

c. The number of users?

d. The amount of payment by the clientele?

e. The time of the activity's offering?

f. The amount of usage?

These are some of the many problems that must be identified and defined by decision-makers in solving community problems. One community problem, then, is identifying the problem--while something can be done about it--before it is too late. A tool, functioning as an early warning system, would be useful to urban decision-makers.

Support Information

It is generally recognized that not one of the foregoing examples can actually be satisfied with those methods of data collection, processing, and analysis currently in use by decision-makers. To clarify and organize all relevant values, to take an inventory of all important possible policy alternatives, to track down the endless possible consequences of each possible alternative, then to match the multifold consequences of each with the statement of goals--all this runs beyond the capacity of the human mind, beyond the time and energy that a decision-maker can afford to devote to problem solving, and in fact beyond the information that he has available.

The government's effectiveness is increasingly at the mercy of its information. It is hard to find managers and planners who are satisfied with the quality of their information. Their complaints fall into a number of categories:

1. There is too much information of the wrong kind, and not enough of the right kind.
2. Information is so dispersed throughout the community that a great effort is usually required to locate simple facts.
3. Important information is sometimes suppressed at some level of government for various reasons.

4. Important information often arrives too late to be useful.

5. Information often arrives in a form that offers no opportunity of corroboration.

Despite these serious complaints, few cities have taken the trouble to consider basic alternatives to their present information arrangements. They are, in fact, surprisingly slow to take advantage of new information-management concepts and technology. The typical attitude seems to be that important information eventually flows to the right decision-makers, that each decision-maker can best gather the information he needs, and that a system of information management carries the danger of manipulation.

Increasing research into administrative decision-making indicates that these premises are wrong. Key decision-makers are often unaware of important developments; they do not always make optimal use of existing information; and they frequently distort information in passing it on. A systematic solution to these problems is absolutely necessary if managers and councilmen are to make effective and swift decisions in an age characterized by high mobility, changing citizen demands, and intense opinions.

Resource Constraints

In actual urban decision-making, events are often so pressing that decisions must be made very rapidly. The decision-maker usually does not have the time to oversee vital information collection. His organization is not set up to collect, process and analyze information of a critical nature within a relatively short period of time.

Decision-makers have a continuous need to keep abreast of events and opinions in various sectors of the city. Yet to subcontract a project out to research firms for studying each problem separately would involve great cost for work which is repeated in each problem.

The decision-makers have the choice to make a decision either with or without information as to the direction and intensity of opinion from various segments of the community. If he chooses to decide without the information, he is willing to bear certain consequences. If he chooses to decide with greater information, then he must pay separate data collection, processing and analysis costs to outside firms.

Part of the cost charged to the city comes from common tasks such as sampling, interviewer and coder training, and computer programming. If one firm would do the job or if city employees were trained to do it, the same sampling designs, computer programs, coders and interviewers could be used over and over without the add-on cost. This would result in great savings. Another part of the cost charged to the city is profit for the research firm. If the city could take over this critical information collection and analysis function, the cost could be further reduced. Under present conditions of decision-making, most city managers and councilmen would rather make most decisions with less information available than pay high costs to outside firms for more information.

Goals and Values

Another conspicuous difficulty in decision-making is finding appropriate values to guide policy choices; disagreement is inevitable. How does the

decision-maker decide what is of value to the citizens of the community? When value preferences conflict, how can he tell which value is preferred by the most people? How can he tell which value is most intensely held by whom? One factor in planning is the opinion of the electorate. Does air pollution control rate higher than beautification, traffic control higher than storm drains, refuse collection higher than street maintenance? At some point the decision-maker must either make a guess or decide on the basis of reliable information.

Improved Method: The Proposed Subsystem

Utilizing the concept described previously, the City of Tempe could feasibly create an information subsystem to support the decision process. We have laid out a blueprint for an organizational unit that can improve the accuracy and comprehensiveness of municipal information. The proposed subsystem has been named MIS for Municipal Information System.

The concept of MIS can best be understood if we emphasize its functions as being oriented to both citizens and decision-makers. The citizens' ask for more responsiveness while decision-makers ask for more effective government. MIS is designed to meet the planning, implementational and control needs of the modern manager by assisting the flow of information from the public to him. MIS relays information from the public to the decision-makers that otherwise would not have been transmitted.

MIS is based on the assumption that the more the users of information participate in its collection and analysis, the more confidence they will have in it, the more they will understand it, and the more they will utilize it for further planning and control functions.

Many evaluation studies are not undertaken because of the cost of the research by outside firms. Many evaluation studies which are completed do not lead to changes because the researcher is not focusing on the relevant problems of the study, because the users do not understand the research, or because the users feel threatened by the research.

In MIS, the potential users of information will also be the gatherers and the processors of the information. In this manner, the council, manager and department heads can focus on problems which they consider relevant to the community. Maximum quality control will be maintained through professional research and design of the system, training of the workers in particular areas, and maintaining competency by periodic training sessions in the newest techniques.

Subsystem Concepts and Elements

Figure 7-1 is a diagram of a Municipal Information System. The system breaks down into three major function areas:

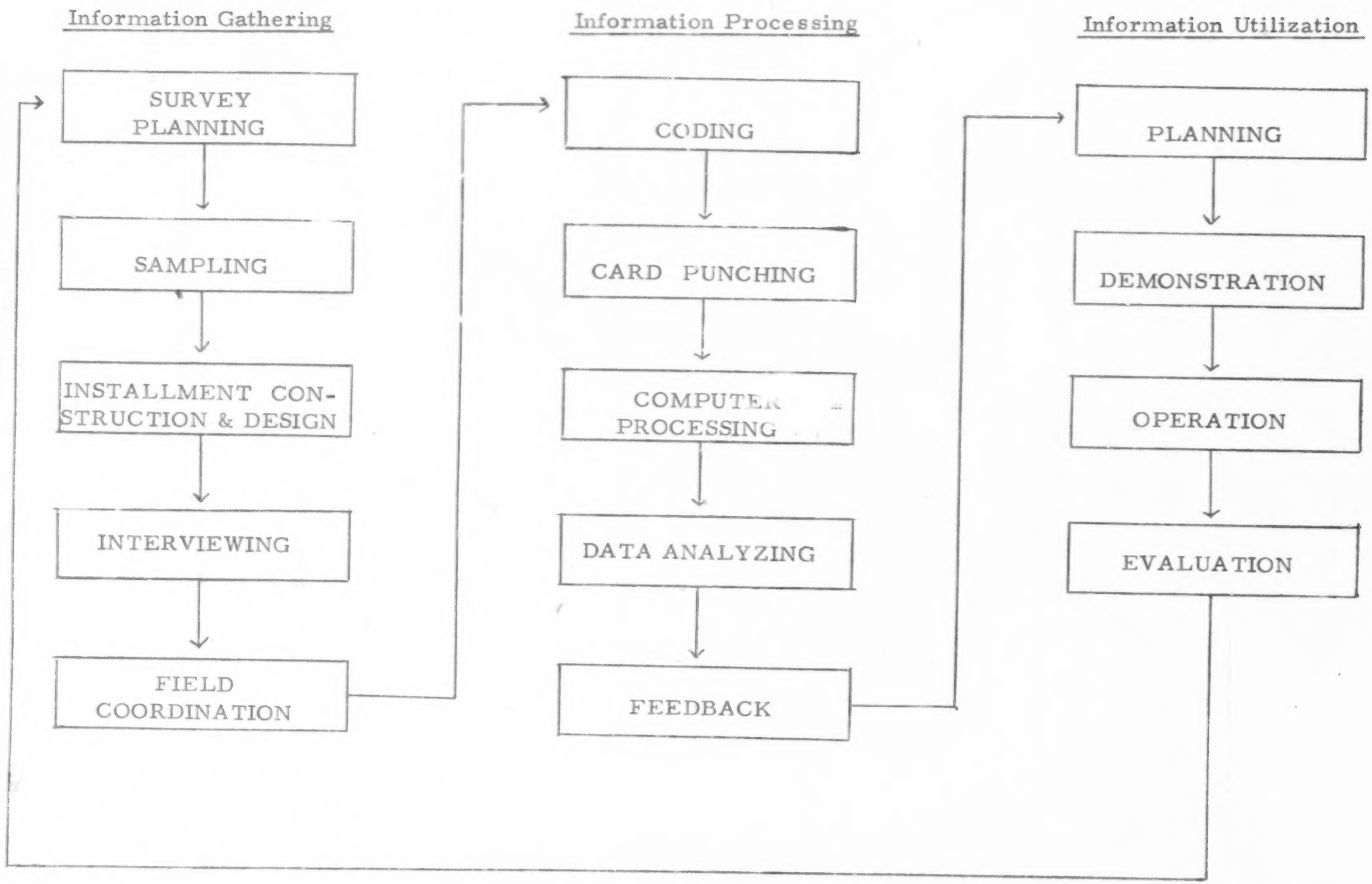
1. Gathering,
2. Processing, and
3. Utilization.

In addition there are a number of subfunctions.

1. Gathering. Gathering involves the effort to develop or locate information sought by the manager and council, or deemed to be relevant to their needs. This function is made up of five tasks.
   a. Survey planning. The planning of a survey is a combination of technical and organizational decisions. Questions have to be

Figure 7-1

A Schematic Diagram of Municipal Information System

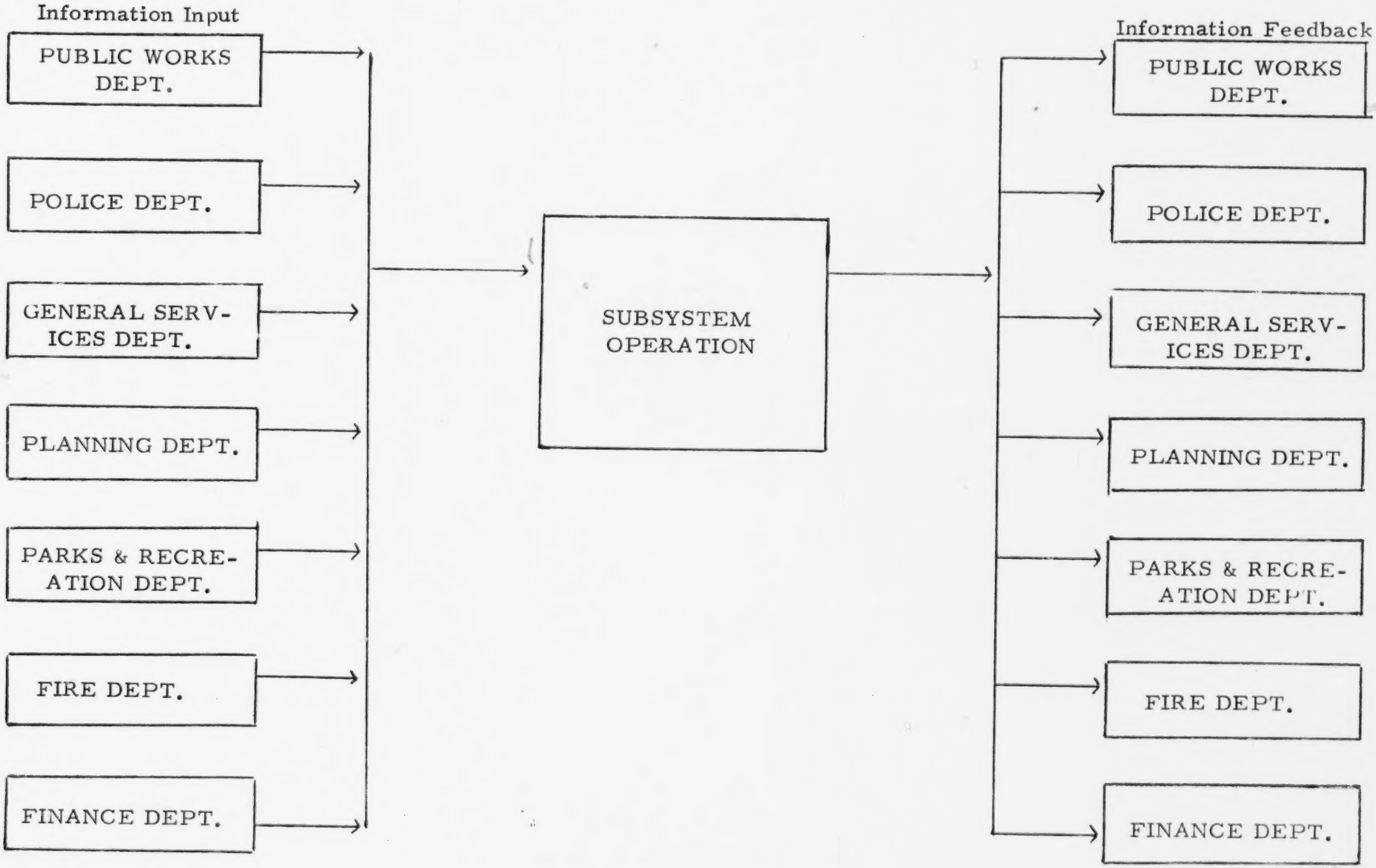


answered: What population coverage to aim at; What information to seek; How to process and interpret the results, etc. These matters must be considered in relation to the purpose of the survey, accuracy required in the results, the cost, time and labor involved and other practical considerations. In the preparatory stages, several approaches will be explored. A series of survey orientation meetings could be scheduled, and each department could be represented. Representatives would be assigned a field of specialization. The areas of specialty are sampling, questionnaire design and construction, interviewing, field coordination, data processing and data analysis. Representatives would become familiar with every stage of survey research by attending all orientation sessions and by following the first demonstration project through to completion. They would develop expertise in their specialized field by separate training sessions with professional survey researchers. Figure 7-2 illustrates the three functions that the departmental representatives perform: information input, survey operation and information feedback.

As for information input, the people in public works are most familiar with types of information needed. Parks and recreation, police and fire departments will also be feeding

Figure 7-2

Diagram of Information Input, Subsystem Operation, and Information Feedback of Departmental Representatives



in information concerning problems requiring determination. Concerning survey operation, the representatives could be trained either to perform or teach others to perform the basic steps of survey research. As for information feedback, the representatives would take the results and interpretation back to their respective departments for corrective actions.

b. Sampling. In this module, the orientation sessions would include the following:

1. Determining what a good sample is;
2. Determining sample size;
3. Determining how much error to tolerate;
4. Determining degrees of confidence;
5. Mechanics of drawing samples;
6. Choosing specific persons to be interviewed;
7. Determining number of callbacks; and
8. Deciding how many interviewers are needed.

c. Questionnaire Construction and Design. The heart of any research is the data instrument. This involves specifying the procedures to go through carefully, finding the right people to interview, interviewing properly, making sure the survey is completed, and facilitating handling of the data. The orientation sessions would include the following topics:

1. Preparing for writing the questions;
2. Deciding what to ask;

3. Asking fact, opinion, information and self-perception questions;

4. Asking structured and unstructured questions;

5. Wording questions;

6. Sequencing questions;

7. Writing demographic questions;

8. Critiquing questions;

9. Precoding questions; and

10. Using colored pages.

d. Interviewing. Once the questionnaire is written, the orientation sessions would focus upon the techniques and tactics of interviewing.

1. Pretesting would be necessary both as an aid for questionnaire development and as a method of interviewer training;

2. Instructions for assembling interviewer kits would be given; and

3. Training and briefing of interviewers would be done.

e. Field Work Coordination. Sending the now well-trained, well-briefed and well-motivated interviewers into the field requires maximum coordination. A field supervisor specialist would be trained to perform coordination tasks:

1. Making assignments;

2. Drawing up master control sheets;

3. Staffing;

4. Keeping the interview within time limits;

5. Cleaning up;

6. Debriefing of interviewers; and

7. Verifying the reliability of the interviews.

2. Information Processing. The second phase of MIS involves the processing of the information collected.

a. Coding. To the extent possible, anticipated responses would be precoded when the data instruments are drafted. Data would be further coded by numerical categories for transfer to punched data cards. Professional researchers would train city personnel on techniques and controls for reliable and valid coding.

b. Card Punching. After the information is coded, orientation sessions would involve training for the use of:

1. Equipment (key punch, key tape or tape punch) to record information from source documents;

2. Classifying and arranging equipment (sorters and pre-processors);

3. Reporting equipment (listers and printers).

c. Computer processing. To tabulate the responses and to conduct statistical analysis on the data, programs would be written. In addition, city workers would be familiarized with the mechanical capabilities of the computer. This could include an introduction to media and devices, various processing methods and languages that are available with the computer. The orientation sessions

could focus upon applications for problem solving in each of the departments of city government.

d. Data Analysis. Once the information is processed, it remains to be analyzed, interpreted, and evaluated. Orientation sessions could introduce basic statistical concepts to the employees specializing in statistics. Two sets of problems would be emphasized:

1. How can univariate, bivariate and multivariate data be summarized and described?

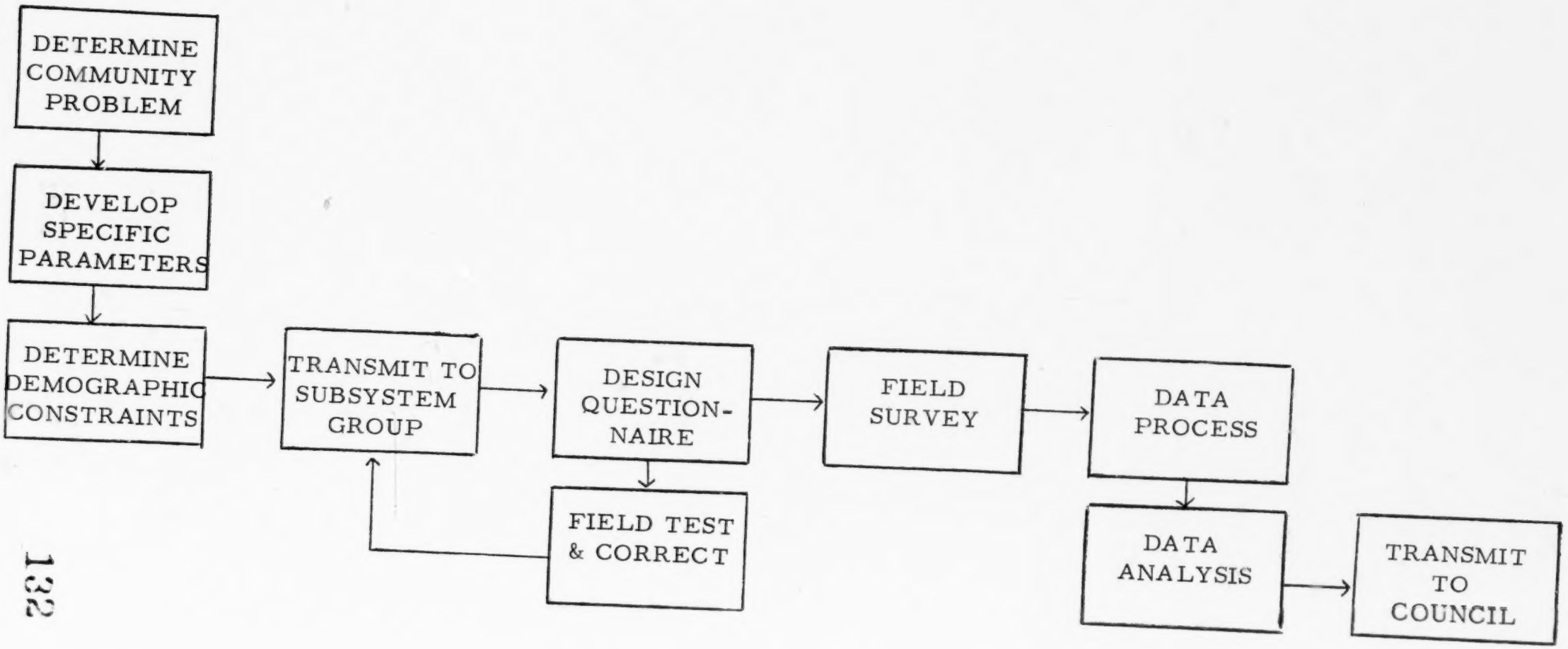
2. How can inferences from summaries or observations be drawn?

3. Information Utilization. MIS must offer more than information gathering and processing services if it is to add substantial leverage to the government's planning and control capabilities. As figure 7-3 indicates, MIS will assist with the planning, demonstration, operation evaluation tasks of information utilization. Many administrators who may have done excellent work in measuring existing public needs, resources, and community attitudes, in following the general steps for defining variables, and in carrying out the requisite service activity, seem unwilling to proceed with an evaluation of their efforts.

a. Planning. Planning proceeds step by step and each step must be evaluated before the next step can be taken. At this point, needs and resources are joined with community attitudes in the development of programs.

Figure 7-3

Typical Subsystem Operation



1. Needs. A public health need, for example, is a problem affecting the health of the community population and which, according to prevalent cultural values, requires solution. Such needs, to be evaluated, have to be translated into administrative terms dealing with immediate and ultimate objectives.

2. Resources. To carry out a health program, resources of trained personnel, vaccines, drugs, etc. are required. The evaluation of available resources, both their quantity and quality, is a prerequisite to adequate planning.

3. Attitudes. The survey research component is brought into play at this stage of planning. Effective health programs, for example, can rarely be conducted in the present era, unless the community attitude toward them is satisfactory. Evaluating community attitudes involves survey research designed to determine what the public knows, believes and is willing to do or accept in regard to any specific governmental problem.

b. Demonstration. Given a program plan, the next step is to try it out on a demonstration basis. Demonstration projects are research applications in a practical setting. The results are for the purpose of determining whether these knowledges or experiences are actually applicable. As such, demonstration projects occupy

a position somewhere between research and service. The orientation sessions on demonstration projects will focus upon the following tasks:

1. Measuring the impact of new activities upon the specific problem;
2. Showing their impact upon the other programs and activities of the service agencies;
3. Testing their acceptance by the public;
4. Serving as a framework for further research; and
5. Helping the gradual development of future programs. Quality demonstration projects will be built in such a way as to permit maximum flexibility. Even at what superficially seems to involve major costs, demonstrations that determine whether extensive or long-term efforts should be adopted will be the means of getting better and more extensive service at less cost than today's unevaluated, skimpy, and often ineffective programs. With the improved quality of administration and scientific programming, demonstrations in one area should provide some pilot experience for others.

c. Operation. A successful operational program is, of course, the ultimate goal of program planning, demonstration, and evaluation. The general purpose of program planning is to define the problem and to formulate program objectives and devise the means or activities for accomplishing these objectives. The demonstration

program helps to indicate the probable success of the planned program, to try out procedures, and to suggest modifications. The evaluation provides a measure of the extent to which the demonstration or operational program, with its actual delivery of services, would provide the ultimate rationale for all of the follow-on procedures. The operations research component of MIS would provide continuous audit, assuring the maximum utilization of program practices related to the desired goal. By stating the conditions under which certain procedures will attain predetermined goals, operations research provides for the establishment of evaluation machinery with an apparatus for new decision-making when the key variables change beyond predetermined limits.

d. Evaluation. Evaluation provides a measure of the extent to which the demonstration or operational program attains the desired results. Training sessions would emphasize the methodology and practice of evaluative research:

1. Discovering whether and how well objectives are being fulfilled;
2. Determining the reasons for specific successes and failures;
3. Uncovering the principles underlying a successful program;
4. Directing the course of experiments with techniques for increasing effectiveness;
5. Laying the basis for further research on the reasons for the relative success of alternative techniques; and

6. Redefining the means to be used for attaining objectives, and even redefining subgoals, in the light of research findings.

e. Feedback. Results of evaluation are fedback to the decision-making control center for continued program correction and planning.

Benefits from the Proposed Subsystem

All social institutions or subsystems, including governmental and economic, are required to provide "proof" of their legitimacy and effectiveness in order to justify society's continued support. Both the demand for and the type of acceptable "proof" will depend largely upon the nature of the relationship between the social institution and the public. In general, a balance will be struck between faith and fact, reflecting the degree of man's respect for authority and tradition within the particular system versus his skepticism and desire for tangible "proofs of work."

It is not difficult to account for the increasing pressures upon governmental agencies to evaluate their activities. The current desire to judge the worthwhileness of such programs is but one aspect of modern society's belief that many of its social problems can be met most effectively through planned action based upon existing knowledge, including the design of even better solutions in step with advancing knowledge.

The commitment of the modern world to planned social change is overwhelmingly apparent on the national and international scene. It is to be found

in current approaches to the political, economic, social and medical problems of the affluent societies in their attempts to change the structure and functioning of the underdeveloped areas. The "War on Poverty" has a similar goal--the elimination of economic, educational, medical and social deprivation. A municipal information system attempts to provide a systematic basis for program planning, implementation, and evaluation at the community level.

Public Participation

As a direct benefit, this system would allow participation of the public in the planning of programs. To an increasing extent, the public is taking an active role in determining what services it will receive. Partly, this is the result of an increased need to secure public participation and partly, it represents the absence of professional guidelines which would enable the public service administrator to know what services would be best for the public. For example, the current accent of the War on Poverty on "self-help" programs places a premium on the community's own definition of its needs for service. While in some cases the public demand will be for evaluation and proof of the effectiveness of programs, for the most part the emphasis will be upon the delivery of services. Thus, popular causes spring up which bring pressure upon the program administrator to satisfy public demand regardless of professional judgment or evaluation findings. The administrator in this case is faced with the decision of continuing a program unaccepted by the public with the consequences of creating greater institutional distrust, continuing the program

and taking on the obligation of educating the public, or discontinuing the service. The evaluation would point out the consequences of the decision which the administrator might select.

Performance Measurement

This proposed subsystem would challenge the "taken-for-granted" assumptions underlying programs. Some cities, for example, spend considerable amounts of money on publicity and information for citizen consumption assuming that this has an impact upon his knowledge and attitudes about what the city does. Operational programs such as these are often highly entrenched activities based upon a large collection of inadequately-tested assumptions and defended by staff and field personnel with strong vested interests and opinions on the continuation of the program as it is. It is obvious from this description that an evaluation study which proposes to challenge the effectiveness of an established operation program may pose a problem to program personnel. Therefore, it is not surprising to note how seldom an evaluation study of an existing program is undertaken. To a large extent such evaluations are limited to new programs which are still open to change. And yet the need for evaluation is undoubtedly greatest for operating programs with some deficiencies.

A municipal information system recognizes this need and would attempt to test the effectiveness of traditional programs. Advisory committees could be established to review the current status of a program on a regular basis. This review committee could consist of interdisciplinary program teams. In other

words, the members of one department might be called upon to work in another department and make recommendations. Given a mixture of backgrounds and perspectives, it is more likely that some member will challenge the existing program. The criticism would then come from within the governmental unit, not outside. Change could come about without premature public exposure and would eliminate ineffective, costly pre-planning.

MIS could assist in determining the extent to which program activities are achieving the desired objectives. It would help measure the degree of progress toward ultimate program goals and indicate the level of attainment. For example, the Parks and Recreation Department may design a program for elderly persons. MIS would provide information as to the extent of participation of elderly persons in the community in the program as well as their motivations and attitudes about participating and non-participating. It could investigate specific problems in the operation of the program.

The MIS would assist in pointing out specific strong and weak points of program operation and suggest changes and modification of procedures and objectives. An analysis of police-community relations might show how police could more effectively relate to minority groups, taking their culture into account. It would allow the employees to see themselves from many different perspectives.

A municipal information system could provide quality-controls and could be a basis of judging improvement along certain dimensions. For example, in the process of refuse collection, containers may not be replaced or refuse

may be spilled consistently from the containers or trucks. It would indicate the areas of the city and the extent of the problem before it gets to the critical stage.

The proposed system could assist in developing new procedures and suggest new approaches and programs for future development. This community survey indicated that citizens were vitally concerned with the problem of juvenile delinquency. The researchers found that citizens were willing to volunteer their services to assist in solving juvenile delinquency problems. The community could undertake a volunteer program.

In the same survey, the researchers found that some elderly people in the community had negative attitudes towards expenditures for parks and recreation. Further analysis revealed that these people felt that they had been excluded from the programs. The park and recreation planners, in other words, had planned primarily for children; and adults felt largely excluded, particularly the elderly adults. These attitudes suggest that new programs should be included to augment the needs of segments of the population which had been omitted in the planning stage.

The information system would help provide checks on possible negative side effects. A refuse containerization program, for example, as employed in Scottsdale, might require that containers be shared. An attitude study would in part determine the extent to which sharing causes conflicts among neighbors.

The system would assist in establishing priorities among programs in terms of the best use of limited resources--funds, personnel and time. Allocation decisions would be facilitated.

A municipal information system would assist in providing public accountability. Decision-makers would benefit by learning what the community wants and their opinions on various programs. It would help the decision-maker reflect the values of his constituency and lead it in critical periods.

The information system would help build staff morale through involvement. It would provide goals and standards against which to measure progress and achievement. Many problems in city government involve the routine, daily affairs of maintaining a city. The information system would be largely conducted by the employees. It would give them a goal for better achievement. It would provide a challenge for better work.

The system would assist in developing a critical attitude among staff and field personnel. It increases communication and information among program staff resulting in better coordination of services. It could create an atmosphere more conducive to change. The system might help develop skills toward the use of more efficient information systems and data processing machines. These techniques may be generalized to other administrative problems in city affairs.

A municipal information system would cement the ties between the community and the University. One component of the system could have a University faculty member present the newest and most relevant information from the social and physical sciences to city administrators. Other professors specializing in fields relevant to community problem-solving might also be involved.

Summary

Decision-making in communities requires reliable sources of information. Often city managers and councilmen are not faced with a given problem as depicted in the classical model of decision-making but must identify and formulate the problem. The government's effectiveness increasingly depends upon its ability to identify its problems and find relevant information.

The information available to decision-makers, however, often is unsatisfactory for making judgments. Frequently decision-makers find too much information of the wrong kind and too little of the right kind. Sometimes information is so dispersed throughout the community that a great effort is required to locate even simple facts. Important information occasionally is suppressed at some level of government for various reasons. Important information also arrives too late to be useful. Finally, information arrives in a form that offers no opportunity of corroboration. It is surprising that with so many urban problems requiring more information new information-management concepts and technology have not been employed more fully.

A municipal information system might be developed to improve the information base of the decision process. Its functions are oriented to the needs of citizens as well as to the city's decision-makers. The municipal information system is based on the assumption that the more the users of information participate in its collection and analysis, the more confidence they will have in it, the more they will understand it, and the more they will utilize it for further planning and control functions.

The basic components of the system involve data gathering, data processing, and data utilization. The steps of survey research are outlined as an illustration of the basic functions of the information system.

The information system would have a number of benefits. First, it would provide an opportunity to evaluate the effectiveness of present programs. Second, it would allow more active participation by the public in the planning of programs. Finally, a municipal information system would produce better baseline information which is necessary for more effective planning.

Appendix

METHODS: THE 1969 AND 1970 STUDIES

The 1969 Study

Population

The 462 individuals interviewed in the Tempe Community Study of December, 1968, were a representative cross-section of adults living in private households within the city limits of Tempe. All the respondents were at least twenty-one years of age and had lived in Tempe six months or more. Persons living in hotels and motels without independent cooking units as well as student dormitories and fraternity houses were excluded.

Sample Selection

The individuals were selected by means of a multi-level area probability sample. By this method every member of the population sampled has a known chance of being selected. To insure a close fit between the sample and the parent population on certain characteristics, the population was stratified into five geographical areas made up of two or more voting precincts each. These seventeen voting precincts were then used as the primary sampling units. Each of the primary sampling units, or precincts, was further subdivided into clusters of approximately forty dwelling units. A simple random sample of these clusters was then chosen and addresses of all dwelling units within the sample clusters were listed. Finally, a simple random sample of households

within each selected cluster was chosen. An extra simple random sample of households was also chosen at this time to be used in the selection of substitute respondents when the original respondent was not available. Sampling in all cases was made without replacement.

Although each dwelling unit had an equal chance of selection, the adults within the sampling dwelling units had different probabilities of selection since individuals living in households with a large number of adults had a smaller chance of being interviewed than individuals in one- or two-adult households. However, these differences in probabilities of selection are not great.

Sampling techniques of the type employed in this study generally produce results which approximate those that would have been obtained if every person in the survey area had been interviewed. Every sample, however, is subject to some sampling variation which can be mathematically determined. In this study the interval estimate at the 95 per cent level of confidence is $\pm$4.5%. In other words, if 50 per cent of those interviewed indicated they liked Tempe very much and if we repeated our procedure many times, in only 5 per cent of the cases would our estimate differ from the true average by more than $\pm$4.5 percentage points of the actual figure for voters in Tempe. The statistic given represents the best estimate of the parameter in any given interval.

Sampling Method

1. Divide precincts on aerial photograph into clusters of approximately 40 Dwelling Units (DU's)--accumulate totals in each precinct.
2. Decide on desired number of interviews.
3. Add an additional 20 per cent for those unattainable.

4. Compute overall sampling fraction
   sf = $\frac{\text{number of interviews to be taken}}{\text{estimated number of households in population}}$

5. Compute the number of clusters to be sampled in each precinct--select using table of random numbers.
   number of clusters = overall sf x estimated precinct size

6. Canvas selected clusters.

7. Compute the number of interviews to be taken in each cluster

   $\frac{5\ Est_c}{Est_p} \times \frac{b^*}{Est_c}$ = overall sf 5 = number of clusters

   $b^* = \frac{sf \times Est_p}{\text{number of clusters}}$ Est_p = Estimated Precinct Size

   Compute b* for each precinct

   N (number of interviews in each cluster) = $\frac{b^*}{Est_c} \times X_c$

   Est_c = estimated number in each cluster
   X_c = actual number in each cluster
   Compute N for each cluster

8. Using the table of random numbers, select sample of households to be interviewed--also select an alternate sample for substitutes.

The 1970 Study

The second survey was conducted almost totally on volunteer effort of students at Arizona State University during the summer of 1970. Since little funds were available at this point, a telephone survey was used to keep costs down.

A probability sample of 521 individuals was selected from the Tempe telephone directory. Refusals and no answers were substituted for by selecting

cases from an alternate sampling list. The tolerated error at the 95 per cent confidence level was $\pm$4.3 per cent.

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